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TWO CASES OF HEART WOUND, NOT INSTANTLY FATAL.

By G. A. WHITE, M. D., County Physician, Sacramento, Cal.

Ah Bing, æt. 18, was brought to the County Hospital from Florin, a distance of five miles, July 11, 1889, suffering from a stab wound of the left side. The wound was over the ninth rib in the axillary line, and had been dressed by Dr. J. A. McKee, of Elk Grove, a few hours previous. Dulness over the left lung pointed to an injury of that organ. The patient was placed in bed and kept on sedative treatment with opiates. All went well for ten days, when he arose from bed to go to the water closet. He took but a few steps when he fell in a fit of profound syncope. He was placed in bed and I saw him a few moments later. The pulse was scarcely perceptible, breathing difficult, and when he rallied sufficiently to speak, he complained of oppression and severe pain in the chest. Morphine hypodermically, with stimulants, and rest restored the patient for a time, but, as the sequel shows, the injunction of rest was ignored and with fatal results.

July 23d, twelve days after admission and two days subsequent to his first attack of syncope, he, with another Chinese inmate of the hospital, left without permission and walked about three miles to town. As his assailant was in jail for assault to murder, the Sheriff was informed of Ah Bing's absence, and I was directed, if he should return, to send him in to jail, where he would be detained as a witness. On his return from town in the evening I accordingly was about to send him back as directed, when, while sitting in the hospital wagon, he fell over in a profound faint. He was removed to bed, but died almost immediately.

Autopsy made July 24th; showed that the knife had fractured the ninth rib, passed upwards and forwards, wounded the left lung, penetrated the pericardium, punctured the left ventricle of the heart, near its apex, and incised the pericardium of the opposite side. The pericardium was filled with coagula. The heart wound was three-fourths of an inch in length. The muscular wall of the heart at this point was extremely thin and distended. In fact, the knife had produced a traumatic aneurism about the size of an almond. This was adherent to the pericardium by partially organized blood clot and lymph. The knife had evidently not completely penetrated the cardiac wall, but so nearly that I believe a slight rupture occurred when the patient had his first fainting fit. That fatal hemorrhage did not then take place, is probably due to the profound syncope which followed, the smallness of the rent, and the firmness of the coagulum. The exertion of walking to town and back placed more work upon the heart than the clots could withstand and fatal hemorrhage was the inevitable result.

On September 30, 1889, I was requested to make a *post-mortem* examination of the body of an unknown man, who had been shot between 1 and 2 A. M. of the same day. The following history was obtained, and the distances were subsequently verified by careful measurement: The deceased, with a companion, had effected an entrance to a shed by prying off one of the boards, when he was ordered to throw up his hands by the proprietor, who was awaiting developments with a shot gun. This warning was disregarded, and the burglars attempted to retreat through the narrow opening in the side of the shed. One of them succeeded in so doing, but the second, when in the act of squeezing through the narrow aperture, was fired upon from a distance of six feet by the watchman. At that time he was partly within and partly without the shed; the aperture, measuring 10½ inches at the level of the hips and chest, necessitated squeezing through it sideways. At the moment of the discharge, he was facing the gun, the load passing obliquely through an inch redwood board before entering his body. He then drew himself through the opening, having to lift the right foot about fourteen inches, over a cross-beam, to which the side boards were nailed, and ran up an alley towards the street. When he had gone about forty feet, the watchman, who had followed, calling upon him to halt, saw "his hands beginning to drop backwards and his knees giving out, as if he was going to sink to the ground." He ran and staggered a few steps further, and pitched forward on his face. Upon reaching the body and turning it over, he was observed to breathe once and then expired. There was a lighted gas lamp twenty feet distant, in the direction he was running, so that everything was plainly visible. From the opening in the shed to the point where the head lay (identified by a pool of blood), by the shortest line, is 64 feet. As it was necessary to get round the corner of a fence, the distance traversed was really greater.

Autopsy: Made at 5 P. M. The body was that of a powerful man, six feet in height, and weighing over 180 pounds. There was a bruise on the right cheek and over the right eye. An extensive lacerated wound of the left thumb, at its juncture with the palm, exposed the flexor tendons. This was caused by the charge as it emerged from the board. There was a circular wound one-half inch in diameter in the mesial line, passing through the sternum between the third and fourth ribs. On opening the chest, the pericardium was found to be lacerated, the sac being filled with coagula and many spiculæ of bone. The posterior wall of the right auricle was torn away. The anterior wall of the aorta, for a space of 1½ inches above the base of the heart, was gone, and the left auricle appeared to be completely destroyed. The charge had then passed downwards and backwards, cutting across one of the bronchial tubes and lodging in the left lung, from which I extracted a quantity of small shot and a gun wad.

It is hardly possible to conceive how this man could walk more than three or four steps, yet he was able to exert sufficient muscular force to drag himself through a narrow aperture, stepping over a considerable obstruction, and then running almost 70 feet before he expired. The two cases are most interesting, from a medico-legal point of view, as illustrating anew the fact that, even penetrating, wounds of the heart are not instantly fatal.

SYPHILIS AND ITS TREATMENT.

By GUSTAVE MAHÉ, M. D., New York.

Every practitioner in the treatment of diseases has his pet remedy, for which he invariably claims the palm. Syphilologists are no exception to this apparently essential principle of therapeutics, namely, disagreement as to the relative merit of drugs. While, as a rule, all are tolerably unanimous on the question that mercury is the mainstay in the treatment of early syphilis, they differ greatly in the choice of its preparations. Some eminent observers, foremost among them Hutchinson, of London, are strenuous advocates of mercury and chalk; others swear by bichloride; others, with Alexander and Keyes, will place the protoiodide first, while Professor A. A. Smith extols the properties of the biniodide above all others. The general practitioner has before him the testimony of men whose capability and experience are undoubted, and yet they differ widely in their opinions. He wants the best remedy. How shall he obtain it? Shall he load a medical blunderbuss with these different agents and fire them at his patient, in the hope that the most efficient will strike home? or shall he pin his faith to one man's dictum? If he is a thinking man and a close observer, realizing fully that a therapeutic principle is the result of careful and scientific consideration, he will ask himself these questions: What is syphilis? What is the principle of treatment? Are the conditions of the disease the same in all its stages? If they are different, what therapeutical principles do these different stages involve?

Syphilis is an infectious disease, more than probably due to a germ, communicated by direct contact with the syphilitic virus. This virus contains microörganisms, the multiplication of which in the system produces the various symptomatic disorders characteristic of the disease. Most authorities divide syphilis into three stages; but this division is not a true one. The primary stage is only the period of incubation of the second stage, whilst the tertiary stage, so-called, is not syphilis at all; it is only a result of the disease. The duration of syphilis proper (the old first and second stages combined) has no fixed limit. As long as the poison of syphilis remains in activity in the system, so long will the patient exhibit its manifestations. After a lapse of time, of greater or less duration, according to each particular case, the microörganisms are exterminated, or become harmless, and incapable of communicating the disease to a healthy person. With the destruction of the germ, active syphilis ceases to exist. But, during all that period in which we have been tracking these germs, killing off the stragglers, but not daring to boldly attack the main army, as to do so would require weapons whose use would be dangerous to the patient's life, a vast amount of damage may have been done. The virus has penetrated everywhere, leaving the system in a condition which may seriously interfere with its perfect physiological function, and in after years lead to very grave consequences. If the virulence of the poison has not been too great; if a persistent treatment has been adhered to, and if the patient has a good constitution, he will recover perfectly. If, unfortunately, such is not the case, grave disorders manifest themselves, deep ulcerations, destructive to tissue, necrosis of bone, and disease of the internal organs. The patient then is suffering from so-called tertiary syphilis. It is not syphilis itself that produces these symptoms; they are a result only, a consequence of the disease; and that this position is perfectly tenable, is proved by the following facts: A patient, with so-called tertiary syphilis, pure and uncomplicated; (1) cannot transmit the disease to a healthy person. (2) He can have perfectly healthy children. (3) He can, on exposure to active syphilis, reäcquire the disease. That syphilis has been the primary cause of the trouble, all admit, but it has now disappeared, and we have only to combat its results. This is not a distinction without a difference, and to thoroughly understand this fact is to know how to treat the disease in an effective manner. The path of syphilis is not always well defined. Active symptoms and resulting symptoms may coëxist. That is to say, the breaking down of tissues may take place in certain parts of the system while the virus is actively at work elsewhere. It seems clear that in syphilitic diatheses there can be three conditions: (1) A period of activity. (2) A resulting period of structural change, dependent or following the active stage; or (3) a combination of both. The question of diagnosis is here brought out; an intricate problem, only mastered by careful comparative clinical observation.

Mercurial preparations have been so far the most useful in the treatment of syphilis proper; those of iodine in the treatment of its consequences. If syphilis is due to the presence of a germ in its active stage, we must in treating it use a germicide, and the preparations of mercury are all more or less antiseptic and germicidal. During the active stage the principle of treatment is to introduce into the system, without harmful effect, as much of the germicide as is necessary and to keep it there until it has accomplished its work. Mercurial preparations, besides meeting the above requirements, are also valuable tonics increasing the number of red corpuscles, strengthening the patient and putting him in a better condition of resistance. This combination of effects has led to their preference by the great majority of the profession. In the resultant stage, germicides are useless; the germs having disappeared, the task now is to rebuild the old tissues, which must be accomplished by the aid of the alteratives; of these none are equal to the iodides, especially the iodide of potassium; hence the preference which it has received. If active manifestations in combiation with those of the resultant stage are present, the two remedies must be combined, this form of treatment being called the "mixed treatment." The line of treatment will, therefore, be, in the first stage, germicide tonic; in the second, alterative, and in the third stage, germicide tonic and alterative. This is in accordance with good judgment, and experimentative observations have proven it correct. Diagnosis, as has been mentioned, is all important and often very difficult. The individual proficiency of the physician will depend upon the thoroughness of his observations and the opportunities he has had for making them. We have now only to consider the different preparations in use from a chemical and therapeutical standpoint.

The forms of mercury in more general use, are mercury and chalk, calomel, bichloride, protoiodide, biniodide. How mercury and chalk produces its effect is not exactly known. That it is changed into other substances in the economy is certain, as it is insoluble; and would otherwise prove inert. That this chemical change leads to the formation of bichloride is more than probable. Calomel is also insoluble, a portion of it being acted upon and changed into bichloride by the hydrochloric acid of the gastric juice. If, therefore, we use either of these drugs, the following objections arise: (1) Insolubility. (2) Relatively small antiseptic properties. (3) Uncertainty of action. The uncertainty of action is due to the fact that they depend upon chemical changes to become effective, that the conditions upon which this chemical change takes place are ever varying and depending upon the amount of hydrochloric acid in the gastric juice. This reäction is probably as follows: $Hg_2Cl_2 + 2HCl = 2HgCl_2 + 2H$. The nascent hydrogen uniting partly with oxygen forms water and partly with sulphur to form sulphuretted hydrogen, which accumulates in the intestine and causes the characteristic discharges of that gas whenever a mercurial cathartic is exhibited. It is, therefore, by being converted into bichloride that mercury and chalk, and calomel produce their effect. Why not, then, give the bichloride, which is perfectly soluble, having greater antiseptic properties, and which is uniform in its action, besides enabling us to be absolutely positive as to the amount ingested? Protoiodide of mercury is an unstable compound, changing into biniodide in the presence of an iodide, and when left by itself, decomposing in a short time into metallic mercury and biniodide. It is, when pure, insoluble, depending upon the above chemical change for absorption into the system; its therapeutic action being due to the formation of another substance. The dose is larger than that of the biniodide; it is irritating to the intestine, and its antiseptic qualities are far inferior to that salt. We have, therefore, to make a choice between bichloride and biniodide. On investigating their relative merits we find, as a tonic, they are about equal. As to solubility bichloride is freely soluble; biniodide is not. This is overcome by adding to the biniodide solution a few grains of potassic iodine. As to their germicidal powers it has been shown that the biniodide is nearly twice as effective, and the dose being about the same, it is safe to conclude that it must be twice as powerful.[1] I have purposely omitted mentioning several other mercurial preparations, the urate, the formanide, etc., as they have been practically discarded by the profession.

As to the so-called ''mixed treatment'' it is a fact that whatever form of mercury, except the metal itself, is given in combination with an iodide, biniodide is always formed. Why not, then, give the biniodide with the iodide of potassium, regulating the dose of each according to the exigencies of the case. The two drugs will not clash; there will be no danger of poisoning by producing dangerous chemical changes in the stomach. On the contrary, one dissolves the other and adds to its effect. If a combination of bichloride is selected, there will be a chemical change into biniodide of mercury and chloride of potash. The reason that no accident ever occurs in the combination of these two drugs in a prescription, is that the quantity of biniodide formed is only two-thirds larger than the amount of bichloride put in, and in such quantities will not produce serious results. The chemical decomposition is as follows: $HgCl_2 + 2(KI) = HgI_2 + 2(KCl)$, so that for every molecule of bichloride, we get a molecule of biniodide. But as the atomic weight of the iodine is 127, whilst that of the chlorine is only 35.5, we have more biniodide by weight than we had bichloride, thus: $HgCl_2$, weight 270; HgI_2, weight 454; hence for every grain of bichloride introduced, there has been nearly 1⅔ grains of biniodide.

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[1] The subject, from an antiseptic and germicidal standpoint, has been thoroughly investigated in a series of experiments, a full account of which appeared in the New York Pharmaceutical Record, June 17, 1889.

This fact is a very important one to note, as the long-continued use of small doses of mercury, requires very accurate and careful supervision. If instead of bichloride we had used protoiodide, the average tonic dose of which is at least ½ grain a day, a much larger amount of biniodide would have been formed, because instead of using from $\frac{1}{30}$ to $\frac{1}{15}$ of a grain to the dose, we use from ½ to 1 grain, which would form 1⅓ grains of biniodide for every grain of protoiodide, and instead of a fair dose of the latter, we would be using fifteen or twenty times too much of the red iodide. The chemical change is represented thus: $Hg_2I_2 + 2KI = 2HgI_2 + 2K$, the liberated potassium uniting with water immediately.

The formation of the protoiodide and biniodide can be readily seen by the following experiment: To a solution of bichloride of mercury add gradually, drop by drop, a solution of iodide of potassium. A bright yellow precipitate will be formed, which will become red on the addition of more iodide, and will finally dissolve in an excess of that drug. The yellow is protoiodide; the red, the biniodide. Notwithstanding these facts several observers state that there is no danger in this combination. A celebrated surgeon, occupying a chair in one of our medical colleges, boldly asserts, in his valuable treatise on syphilis, that there is no danger in combining protoiodide and iodide of potassium, and that he does it daily. On examining the matter it will be seen that the protoiodide, so called, used by the professor, is not protoiodide itself, but a decomposed protoiodide which has already changed into biniodide and metallic mercury. His statement, therefore, is not correct, and can be experimentally disproved.

I have endeavored to show that the biniodide of mercury in proper dose, alone or in combination with iodide of potassium, is the best mercurial preparation to use in treating syphilis, because:

1. It is a stable compound permitting absolute accuracy in dosage.
2. It is as powerful a tonic as any mercurial preparation.
3. It is nearly twice as effective a germicide.
4. The quantity of mercury exhibited can be reduced to a minimum, the dose being small.
5. It is not decomposed by, nor does it interfere with the simultaneous administration of iodide of potassium when such a combination is necessary.
6. There is no danger of poisoning a patient by possible change into other substances.

EXTENSIVE FRACTURE OF SKULL, WITH LACERATION AND LOSS OF CEREBRAL TISSUE—RECOVERY.

By Mark F. Patten, M. D., Santa Paula, Cal.

The following case is particularly interesting, on account of the wide extent of the fracture and the large amount of bone removed, as well as the uninterrupted course in which recovery ensued.

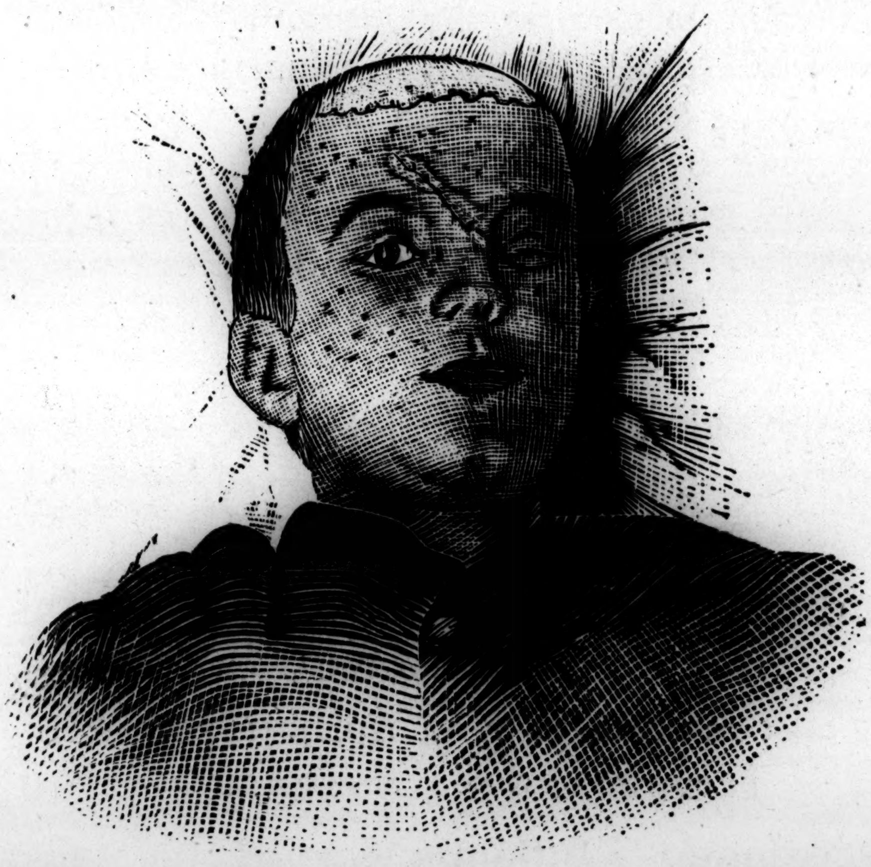
On the tenth day of July, 1889, Geo. F——, æt. 13, while playing with several other boys, filled a piece of gas-pipe, about ten inches long, with powder, plugged both ends with wooden plugs, and inserted a fuse. While stooping over this improvised bomb, in the act of lighting the fuse, it exploded, the boy receiving the major portion of the blast in his face. He was immediately carried to his home, a distance of 600 yards, and when I arrived, a few minutes after the accident, he was conscious, but suffering severely from pain. To relieve the pain a hypodermic of morphine was given. Dr. D. W. Mott was called in consultation; and, chloroform being administered, an examination as to the extent of the injuries was made. There was a clean cut through the scalp four inches in length, about three-fourths of an inch in front of the edge of the hair, extending transversely across the forehead. Beneath this the frontal bone was greatly comminuted, with numerous fractures radiating in different directions. Eight large pieces of bone and numerous small fragments and spiculæ were removed. These had been driven inward and were resting upon the dura mater, some of them being found interposed between the dura and skull, at quite a distance from the edge of the wound. After carefully removing all the loose fragments of bone, the dura was found to be intact, except at the right angle of the wound, at which point there was an irregular opening in the membrane, through which cerebral tissue was protruding. This was lacerated and bleeding profusely from a small artery deep down in the brain tissue. An endeavor was made to secure the artery with the hemostatic forceps, but without success, owing to its depth and the softness of the tissue. The hemorrhage was finally arrested by applying sponges, dipped in ice water. When the fragments had all been removed, the opening in the frontal bone was about four inches long and three-fourths of an inch wide.

In addition to this the left parietal bone was fractured along the line of the temporal ridge as far back as the occipital, the edge of the upper fragment being raised at its anterior extremity one-eighth of an inch above the adjoining bone. The force of the blow was upwards and backwards, and such that the whole upper portion of the skull was displaced upwards, there being a space of half an inch between the vault of the skull and the dura, and a probe could be passed backward between them nearly its entire length. We were unable to depress this elevated portion of bone to its proper position on the application of considerable force, and thought it best to leave it alone. On the right side a large piece of the parietal bone was loose, and could be easily moved. Its anterior extremity was depressed, the pointed end projecting into and lacerating the cerebral tissue. This fragment extended backward several inches. It was elevated to a level with the adjoining bone and allowed to remain. In addition to the scalp wound, a deep cut extended from below the inner canthus of the left eye upwards and to the right, across the bridge of the nose, fracturing the left nasal bone and laying the skull bare. On patient's blowing his nose, air came out through the opening made by the broken nasal bone. Air also bubbled up through the blood within the cranial cavity, over the frontal portion of the dura mater, showing a communication through the frontal sinus, between the nose and the cranial cavity. The left eye was also very badly injured; just how badly, we were unable to determine at this time, owing to the swollen condition of the lids.

From the nature of the injuries, it will readily be seen that the prognosis in the case must necessarily have been exceedingly guarded. One point in the boy's favor was the absence of any symptoms of compression, which is certainly remarkable, considering the extensive injury to the skull and the laceration of the cerebral tissue. This can be accounted for in part, I think, from the fact that the force of the blow being chiefly upwards, the entire crown of the skull was lifted up and away from the brain, thus avoiding any direct compression which would necessarily have followed had the direction of the force been backward or downward.

In the treatment and subsequent course of the case, I will be brief. The different wounds were carefully cleansed with carbolic solution, and all sharp edges of bone removed with the bone forceps. A rubber drainage tube was then inserted in the upper transverse wound, an end projecting from each extremity of the wound, and its middle resting upon the dura. A silk thread was passed through the drainage tube, the ends being tied together.[1] The edges of the scalp were then brought together with silk sutures. The wound over the nose was also closed with silk sutures and an ice bag applied to the head.

The patient rallied well from the shock, and the case proceeded rapidly to recovery. At no time did the temperature reach 100° F. The lower wound united by first intention. The swelling around the left eye gradually subsided, leaving the globe in an atrophied condition, with no perception of light. The large wound in the forehead healed nicely, with but slight discharge of pus from the drainage tube. A four per cent. solution of boracic acid was passed through the tube morning and evening, forcing out what little pus had accumulated.



On the twelfth day after the injury, the drainage tube was removed and a silk thread passed through in its place. The thread was left in place for four days longer and then removed.

August 21st: The boy has now been out of bed for over a week, and suffers but little inconvenience from his injuries.

September 5th: The wounds have entirely healed, except at the right extremity of the superior one, where there is a small sinus, at the bottom of which roughened bone can be detected. The boy's mental condition is unimpaired.

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[1] The occasional moving of this thread through the drainage tube, and especially the passage of the knot, assisted materially in the discharge of pus and small pieces of brain tissue which came away, and which otherwise would have stopped up the tube.

From the foregoing engraving it will be seen that the disfigurement is but slight. This represents his condition on the sixteenth day after the injury and shows the line of union of the different wounds. The loss of so large a portion of the frontal bone necessarily leaves a considerable part of the brain covered solely by the scalp, and its pulsations can be plainly seen through the soft parts. Whether this vacant space will ever be filled in by bone tissue, is a question. That it will to a great extent, I am firmly convinced; not, however, by the formation of new bone, but rather by the gradual closure of the fissure from the pressing forward of the upper border, as the result of the future growth and development of the skull.

NOTE.—October 21st: The wounds have been entirely healed for sometime past, and the boy for several weeks has been employed in a grocery store. A strip of adhesive plaster has been applied over the forehead where the frontal bone is deficient, and serves to protect the brain from any blow which may be accidentally received. The pulsations of the brain can be plainly seen, but are not so marked as formerly. An artificial eye has been inserted and aids materially in lessening the deformity.

REPORTS FROM THE HOSPITALS AND ASYLUMS OF THE PACIFIC COAST.

SOUTHERN PACIFIC COMPANY'S HOSPITAL,

Sacramento, Cal.

UNDER THE CARE OF T. W. HUNTINGTON, M. D.

[Reported by GEO. B. SOMERS, M. D.]

Phlegmonous Inflammation of the Neck.

M. F——, æt. 38, laborer, entered the S. P. Co's Hospital complaining of sore throat, and with a history of having had several rigors, followed by fever. On examination the tonsils were found swollen, and the posterior pharyngeal wall somewhat protuberant. The patient was given quinine and a gargle. The next day the tonsils and uvula became greatly swollen, and the retropharyngeal tumor increased to such an extent that the patient could speak only in a whisper. He swallowed with great difficulty, fluids being often regurgitated through the nose. Meanwhile the left side of the neck had become greatly swollen and of a dusky red color. On the seventh day the patient's condition became alarming. He was unable to swallow, and had to be fed *per rectum*. He was very weak, but insisted on sitting up in bed, as he rested and breathed easier in that position. During all this time hot lotions, containing laudanum and acetate of lead, were applied to the neck, and changed every three hours. No fluctuation could be detected at any time; but on the tenth day it was determined to operate. The patient was etherized, and an incision made along the sterno-mastoid muscle, just above the omo-hyoid. The opening was stretched with dilators, and a quantity of pus evacuated. The cavity was irrigated with bichloride solution, and a drainage tube inserted. The patient made a rapid recovery, and in two weeks was discharged cured. *Remarks:* This case is a good illustration of the communication between two of the connective tissue interspaces of the neck. Henke mentions five interspaces. The two involved in this case were the retrovisceral and the intermuscular. The retrovisceral lies between the pharynx and esophagus anteriorly, and the vertebral column behind. It communicates with the posterior mediastinum and also with the intermuscular interspace. The latter is situated at the crossing of the sterno-mastoid and omo-hyoid muscles. It communicates with the retrovisceral interspace, and also with the axillary cavity along the subclavian vessels. The trouble in this case began as a retropharyngeal abscess in the retrovisceral interspace, and extended to the intermuscular interspace, along the connective tissue plane joining the two.

DEPARTMENTS.

OBSTETRICS, GYNECOLOGY AND PEDIATRICS.

By WALLACE A. BRIGGS, M. D., Sacramento, Cal.

The Early Diagnosis of Ectopic Pregnancy and the Best Method of Treatment.—From a careful study of two cases under his own care, DR. HANKS feels justified in adopting the following rules in the management of ectopic pregnancies: (1) *Electricity.*—If the diagnosis is made during the first three months, and if the symptoms have been only the early or premonitory symptoms of rupture, use electricity. (2) *Laparotomy.*—If the diagnosis is not made until the fourth month, and the severe symptoms continue, do laparotomy and remove the sac and contents in the most approved manner. (3) If the diagnosis is made at whatever stage of ectopic pregnancy, and if the symptoms are alarming and undoubtedly due to rupture and loss of blood, do laparotomy at the earliest possible moment consistent with the patient's ability to endure the operation. (4) *Delay a laparotomy until the seventh month.*—If the diagnosis is made after the fifth month, and the symptoms are less and less severe, the fetus undoubtedly not in the fallopian tube, and the patient is anxious to bear a living child, and you are prepared to watch the patient, and be ready to meet by laparotomy at a moment's notice any emergency that may arise, then delay is justifiable until the child is viable, in order that laparotomy may be performed with the possibility and probability of saving both mother and child. (5) *Operate in best manner for removal of dead fetus.*—When the pregnancy has continued beyond the ninth month, and the fetus is found to be dead, the amount and character of general and local disturbance occasioned by the dead fetus must determine when an abdominal section should be made, other operations performed and the offending body removed.—*Post-Graduate*, July, 1889.

Typhoid Fever in Children.—DR. READ reports in brief 22 cases, from which he derives the following conclusions: (1) Typhoid fever attacks young children only about one-third or one-fourth as often as adults. (2) As far as known it attacks boys more frequently than girls. (3) The prognosis is better in young children than in grown people—the death-rate in the former being from 2 to 6 per cent., in the latter from 8 to 20 per cent. (4) The treatment best adapted for typhoid fever in children is that which keeps the temperature within reasonable limits without attempting to force it too far down, and supports the strength of the patient until the disease is spent and the fever has left. Any procedure which has neither of these two objects in view is unnecessary and harmful. It is far better not to treat the disease at all than to treat it too much. The more powerful depressants, aconite, veratrum viride, gelsemium, etc., are contraindicated. The ordinary diffusible stimulants, ammonia, nitrous ether, etc., and the usual heart tonics, quinine, digitalis, etc., are not needed, and therefore may do harm. The best febrifuge is sponging with water at a temperature of 85° to 90°, assisted when the fever rises to 104° by antipyrin or phenacetine. Alcohol in some of its forms is the best stimulant; milk the best food.—*Brooklyn Medical Journal*, October, 1889.

Traumatic Pelvic Cellulitis.—DR. ALLEN recapitulates his paper in the following terms: (1) Lacerations of the cervix uteri may result in the formation of cicatricial tissue, which produces chronic traumatic pelvic cellulitis. (2) In a limited number of these cases, either local or general treatment, or both, will not subdue the inflammation and pain. (3) These means having failed, trachelorraphy may be performed successfully. (4) The dense mass of cicatricial tissue operates similarly to a foreign body, and its removal by Emmet's operation is a logical remedy which precludes the possibility of its reproduction.—*Gaillard's Medical Journal*, September, 1889.

SURGERY.

By T. W. HUNTINGTON, B. A., M. D., Surgeon Southern Pacific Company's Hospital, Sacramento, Cal., and

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The Treatment of Fractures of the Neck of the Femur by Immediate Reduction and Permanent Fixation.—In an exhaustive article (*Journal American Medical Association*) upon the treatment of fractures of the neck of the femur, DR. N. SENN suggests the following ingenious method: The patient is dressed in well-fitting knit drawers and thin stockings. Over these is laid a plaster of Paris dressing, about twenty-four bandages being required. Bony prominences are protected with cotton, and the strength and durability of the apparatus are increased by incorporating between the layers thin oaken shavings. The fractured limb is first encased in the dressing as far as the middle of the thigh, when the patient is lifted out of bed by two strong persons, the physician supporting the limb so as to prevent separation of the fragments if the fracture is impacted. The patient is placed in the erect position, standing with his well leg upon a box about two feet in height; in this position he is supported by a person on each side, until the dressing has been applied and the plaster set. A third person cares for the fractured limb, which is gently supported until permanent fixation has been secured by the dressing. In non-impacted fractures, the weight of the limb makes auto-extension, which is often sufficient to restore normal relations. If this be not the case, additional extension may be obtained through gentle traction by the assistant who supports the limb. In applying the bandages a fenestrum is left open over the seat of fracture, corresponding in size to the dimensions of the compress with which the lateral pressure is to be made. To secure perfect immobility at the seat of fracture, it is absolutely necessary to include not only the fractured limb from the foot upwards, but also the pelvis and waist as far up as the eighth rib, and the opposite limb down to the knee. The splint, which is the most important part of the apparatus, consists of a steel bar, of sufficient length to extend from the upper border of the dressing to the knee over the fenestrum. This bar is bent outward, and at the middle of the curve it is perforated to admit a thumb-screw, the inner end of which is to be attached to a thick pad. To the ends of the bar are attached light transverse bars or flanges. This splint is incorporated in the plaster dressing, the cross-pieces being bent to conform to the contour of the thigh and waist. The compress is then adjusted within the fenestrum, and pressure directly over the trochanters and neck of the femur may be applied and regulated at will through the agency of the thumb-screw. The author reports seven cases treated by this plan in which the results were highly satisfactory, almost complete functional activity being regained in each instance. The following conclusions are appended to the article: (1) From a scientific, prognostic and practical standpoint it is not necessary to make a distinction between intra and extra-capsular fractures of the neck of the femur. (2) An impacted fracture of the neck of the femur will unite by bony union, provided the impaction is not disturbed, and is maintained by appropriate treatment for a sufficient length of time for the fragments to become united by callus. (3) Impacted fractures of the neck of the femur should be treated by a fixation dressing, consisting of a plaster of Paris case, including the fractured limb, the pelvis and the opposite limb as far as the knee, in which lateral pressure can be secured in the direction of the axis of the broken femoral neck. (4) Unimpacted fractures of the neck of the femur, both intra and extra-capsular, should be treated by immediate reduction and permanent fixation, so as to place the fragments in the same favorable condition during the process of repair as in impacted fractures. (5) Reduction is effected most readily by auto-extension and traction upon the fractured limb with the patient in the erect position, resting his weight on the sound limb. (6) The fixation dressing and the lateral pressure should be continued for from ten to twelve weeks, the shortest space of time in which bony union will take place. (7) Patients who have sustained a fracture of the neck of the femur should not be allowed to use the fractured limb earlier than four to six months after the accident, for fear of establishing a pseudo-arthrosis at the seat of fracture. (8) The functional result is greatly improved by passive motion, massage and the use of the faradic current.

Laparotomy for Hydatid of the Liver.—In an elaborate paper on the above topic, DR. DAVID THOMAS says that it is not possible to estimate the value of tapping, parasiticide injections and electrolysis, because the cure which often appears to follow is frequently illusory. He sees reason to believe that tapping operations fail to cure in fully 40 per cent., and probably in a larger proportion. Taking aspiratory puncture and ordinary tapping operations together, the deaths amounted to nearly 18 per cent., but the mortality following aspiratory puncture, whether single or multiple, was only about half that of punctures with an ordinary fine trocar. Dr. Thomas believes that the greater the number of punctures required, the smaller the probability of cure, and points out that though simple puncture is generally devoid of risk, it has been known to cause sudden death, sometimes apparently from shock—sometimes, however, in the case of pulmonary hydatids, from suffocation by the fluid contents of the bladder-worm. The objection to puncture as the mode of treatment for internal hydatids, however, lies less in the occasional perils of the operation than in its frequent inefficacy. Nothing can be said in favor of parasiticide injections into the sac and the employment of electrolysis that does not apply with equal force to simple puncture; and, moreover, each possesses drawbacks of its own. The statistics of abdominal section for hydatid of the liver compiled by Dr. Thomas, are extraordinarily good. He has collected 68 cases thus treated, with only seven deaths. In one of these the patient died suddenly during the operation from arrest of the heart, due to a hydatid cyst in it; in two others there were multiple hydatids in the body. Even including these three cases, the recoveries amounted to within a fraction of 90 per cent. The method by two stages, producing peritoneal adhesion by incision and packing with carbolized gauze (Volkman's method), showed a mortality of a fraction over 19 per cent. The operation by caustics gave a mortality of 33.68 per cent., while that by the *canule á demeure* was 26.66. The cases treated by Volkman's method only numbered 21; but even so, the statistical evidence appears to be strongly in favor of abdominal section as the safer procedure. Where unruptured cysts present on the convexity of the liver, the treatment offers greater difficulty, for Dr. Thomas states that thoracic incisions show a high rate of mortality. As to pulmonary hydatids, however, the risks and disadvantages of puncture are so great, and the results of radical operations on the whole so favorable, that Dr. Thomas considers that there ought to be but little difficulty in making a choice of treatment in ordinary cases. Where a hydatid, whether of the liver or of the lung, has ruptured into the pleura, free incision into the pleura appears to be the only treatment which holds out a fair promise of success.—*British Medical Journal.*

Trephining the Mastoid for Abscess of the Middle Ear.—WALTER SCHERRER publishes a list of cases, in which the mastoid was trephined under the direction of Krünlein, at the Surgical Klinik of Zürich. In opposition to statistics drawn from the practice of specialists, it is intended to place the results obtained at a general surgical department. Forty-six cases are reported *in extenso*, and are divided into six groups, according to the extent or the character of the morbid process. The first group comprises 23 cases, with perforation of the wall of mastoid process (formation of a fistula). The second group, 6 cases of sclerotic softening of the mastoid, without perforation (two cases of death from abscess of cerebellum and diphtheria of larynx). The third group, 9 cases of suppuration of the cells of the mastoid, with a healthy surface. Fourth group, 3 cases of sclerosis of the process. Fifth group, 1 case of arrosion of the transverse sinus. Sixth group, 4 cases of exposure of the dura mater (one death from meningitis, originating before the operation). The method of operation was about the same as that recommended by Schwartze, the after-treatment alone differing very materially from the one usually adopted, as the dressing was changed at the end of from one to two days; only in exceptional cases, as a rule, allowed to remain for eight to ten days. After preliminary disinfection with a solution of sublimate (1:2000), the wound is tamponed with iodoform gauze, and the latter carried out of the lower angle, the rest of the wound being sutured. On the removal of the first dressing, the secretion was generally found to be so slight that the iodoform gauze could be discontinued and a simple compress of antiseptic material applied. Drainage was resorted to when the suppuration had extended to the neck. Washing out the external auditory meatus only in cases where there was a profuse and particularly offensive secretion, and if this did not cease of itself shortly after the operation. The results were very favorable, as compared with the statistics published from the ear clinics of Schwartze, Lucus, and Hessler. Out of 46 cases of otorrhea, 32 were dismissed cured (80.3%), and of these 30 (65.2%) proved themselves permanently cured at subsequent examination. In the three (6.6%) fatal cases, death must be ascribed to complications, which were not dependent upon the operation. The duration of treatment was also remarkably short, when compared with the reports of others; for of 27 acute cases, which were all dismissed from the hospital, the average period of treatment lasted only 44 days. Furthermore, out of 19 chronic cases, 10 were cured at the expiration of 40 days. He attributes the favorable results principally to the simple method of after-treatment, which is decidedly preferable to the complicated procedure in vogue at other places. This opinion seems, in fact, fully justified from the results obtained, more especially in acute cases. There can, nevertheless, be no doubt that very often—for example in chronic cases—the after-treatment emphasized by Schwartze (long and careful washing out of the temporal bone), cannot be dispensed with, if a definite result is to be obtained. This is even apparent from the cases reported by the author, for of three chronic cases, which were treated by the simplified method, almost one-half of them failed to heal. The operation is, as Schwartze properly says, in speaking of trephining the mastoid process, in many cases but the commencement of the therapy.—*Centralblatt f. Chirurgie*, No. 37, 1889.

The Treatment of Nevus by the Intra-injection of Alcohol.—An ingenious method of treatment of nevus is described by T. H. HOLGATE, M. D., as follows: The circulation to and from the growth is arrested by means of pressure upon an iron ring encircling the part. From five to seven minims of 95 per cent. alcohol are then injected into the base of the tumor, the needle being withdrawn as the fluid is deposited. In small growths a single treatment will usually suffice to effect a cure. In the more formidable tumors, several injections may be made simultaneously, and the process repeated until relief is obtained. The author reports two cases treated upon this plan, in which the results were all that could be desired.—*Archives of Pediatrics.*

OPHTHALMOLOGY, OTOLOGY AND LARYNGOLOGY.

By Wm. Ellery Briggs, M.D., Sacramento, Cal.

Quinine Blindness.—In a paper on "Some of the Graver Forms of Cinchonism," read at the last meeting of the American Medical Association, Dr. I. E. Atkinson gives a short history of over fifty cases of quinine amaurosis; two of which were observed by himself, and the rest had been extracted from the literature on the subject. The author arrives at the following conclusions: In the cases of quinine amaurosis which have been recorded, the blindness was absolute in nearly all, but, unquestionably, if careful research were instituted, it would be discovered that impaired vision is not at all an infrequent symptom of cinchonism. The author quotes Briquet, who saw four cases and describes the evolution of symptoms, as follows: The patient begins to complain of the light, and the effort to fix the eye upon objects is painful. There is a sensation like that produced by using strong glasses. The pupil is usually normal, and the conjunctiva not injected. There is a slight degree of excitation of the optic nerve, analogous to that so often seen in the beginning of paralysis of this nerve. In a more advanced degree, patients see as through a mist. Objects seem small, or double, or are not perceived at a distance of two or three metres. Similar cases have been reported to that of Nettleship, in which, after quite small doses of quinine (7½ grains, taken in two doses daily for three days), the sight became rapidly dim; reading was impossible, and distant objects were seen indistinctly. Two years previously this patient had indistinctness of vision after taking quinine. In most cases the blindness develops suddenly. More than once it has been described as occurring "just as though a lamp had been blown out." In many cases, however, vision fails much more gradually. Blindness generally becomes complete within twenty-four hours, though sometimes several days may elapse before this occurs. The duration of total blindness; the absence of all perception of light, varies, within wide limits, from a few hours, or a day or more to several days, or even months, nearly three in one case. In most cases, perception of light returns within a few days. In none of the cases, the records of which Dr. Atkinson examined, did the blindness remain absolute. In all, sight is recovered, though often slowly, and nearly always imperfectly. The symptoms of quinine amaurosis are complex, and are summarized as follows: (1) Transitory blindness, complete or incomplete, usually develops suddenly. (2) Color-blindness. As sight begins to return, most cases will be found to be either completely or partially color-blind. (3) Wide dilatation of the pupil. The pupils are irresponsive to light, but are said to respond to accommodative effort. (4) There is pallor of the optic discs, and extreme diminution of the retinal vessels, both veins and arteries; in many cases this is permanent. (5) There is contraction of the visual field; this is extreme, and expands slowly. There is no reliable evidence that it ever regains its normal extent. Impairment of hearing, (at times to total deafness), with tinnitus appears to be present almost invariably. It is rarely complete more than twenty-four hours, and gradually disappears. The quantity of quinine causing blindness varies so greatly that some idiosyncracy must often exist to explain the result in certain cases.—*Journal American Medical Association*, Sept. 28, 1889.

Throat and Nose Affections in Children, in Relation to Certain Derangements of Sleep, Temper, Spirits, Energy, Intellectual Power, and other Brain Functions.—In reviewing the literature of the subject, DR. SPICER groups the nervous derangements, associated with throat and nose disorders, in three classes: (*a*) Those indicative of irritation of nerve centres (disturbed sleep, night terrors, walking in sleep, etc). (*b*) Those indicative of exhaustion, or debility of nerve centres, (habitual headache, dizziness, depression, drowsiness, etc). (*c*) Those indicative of defective intellectual evolution and activity (slowness of apprehension, weak memory, backwardness, etc). The symptoms of irritation usually appear first, followed by the others at varying intervals. He was lead to suspect an intimate connection between nervous derangements and affections of the naso-pharyngeal tracts by the frequency with which they coëxisted, by the large proportion of idiots and weak-minded children in workhouses, who possessed the characteristic physiognomy of adenoid vegetations, and the frequency with which the symptoms referable to irritation disappeared, and intellect, spirits, and temper improved. after cure of the throat and nose trouble. There was an analogy in the effects to an ordinary cold in adults. Several cases were cited from the author's practice, in which removal of long-standing interference with the patency of the nasal channels had improved the mental condition. Dr. Spicer sums up his conclusions as follows: (1) That certain nose and throat affections in children were among the causes of derangement of sleep, temper, energy, intellectual power, and other functions of the nervous system. (2) That long-standing derangement of these functions in the growing child implied a defect in the nutrition of the tissues, which would leave its mark on the nervous and mental faculties of the adult. (3) If no sufficient cause of derangement of the above-mentioned functions could be discovered elsewhere, the condition of the nose, naso-pharynx, and throat should not be dismissed without examination. (4) The naso-pharyngeal affections capable of producing these derangements were principally chronic catarrh, with erectile and hypertrophied conditions of the mucous membrane, the post-nasal adenoid vegetations, and the enlarged tonsils. (5) That many of these nervous derangements rapidly disappeared, and others were ameliorated in a great number of cases by the cure of the local nose and throat disorder. (6) The cases which were most likely to receive benefit from local treatment had, generally, also some of the following direct symptoms of nose and throat trouble: Perpetually open mouth and dropped jaw; habitual mouth-breathing; snoring at night; dry mouth on waking in the morning; inability to blow the nose; chronic and recurrent sore throat, colds and coughs. These symptoms demanded attention on their own account, quite independent of any nerve derangement.—*British Medical Journal*, Sept. 14, 1889.

The Inconvenience of Celluloid Artificial Eyes. — DR. L. MEURER, says (*Province Médical*) that celluloid artificial eyes are not brilliant, with the appearance of life, like glass eyes. They do not, however, break, and they mould themselves to the inequalities of the orbital cavity. Notwithstanding its advantages, celluloid is very inconvenient, as it cannot be worn more than three or four months. The secretions of the lids and orbital cavity produce chemical changes in the celluloid and the margin of the lids become red, swollen and painful, producing an abundant purulent secretion which soon compels the patient to abandon wearing the eye.—*France Médicale*, September 21, 1889.

DERMATOLOGY AND VENEREAL DISEASES.

By G. L. SIMMONS, JR., M.D., Sacramento, Cal., and

D. W. MONTGOMERY, M.D., Professor of Pathology, University of California, San Francisco.

White Lead in the Treatment of Erysipelas.—DR. E. STUVER uses locally ordinary white lead ground in oil, and thinned to a proper consistency with Japan dryer in the treatment of erysipelas, and thinks it preferable even to sulpho-ichthyolate of ammonium and lanolin. With this mixture he paints the whole diseased surface, and a little beyond, three or four times a day. He claims that it promptly relieves local pain and tenderness, limits the spread of the disease, and by forming an impermeable coating prevents the dissemination of the specific germs, and consequent infection of abraded or wound surfaces. As illustrative of his treatment he gives the details of four cases: One was a parturient woman with erysipelas of the face Labor came on on the third day of the disease. Stringent antiseptic and aseptic precautions were taken to prevent an infection of the genital tract, and both the erysipelas, which remained limited to the face, and the lying-in went on to an uneventful and happy issue.—*Medical News*, October 5, 1889.

The Iodide of Potash Treatment of Psoriasis.—In a recent article in the *Gazette des Hôpitaux* July 18, 1889, FOURNIER gives his views on the treatment of psoriasis with enormous doses of iodide of potassium, as practiced by Greve, a Norwegian physician, and afterwards formulated precisely by Haslund of Copenhagen. Haslund commences by an ordinary dose of iodide of potash, say 45 to 50 grains *per diem*, and every second day he increases the dose by 30 grains till some therapeutic effect is obtained. In this way his patients take from 45 to 600 grains a day. One patient took 750 grains a day; the average daily dose is from 375 to 600 grains. These huge doses are kept up for the time necessary to effect a cure, that is from 17 to 77 days, the average time being about five weeks. The administration of the medicament should be kept up for some time after the disappearance of the rash in order to avoid relapses.

One of his patients took in three months the enormous quantity of 19,478 grains, another took 23,456 grains, and another 34,814 grains. Of 50 cases six were complete failures, four were markedly alleviated, and forty were absolutely cured in so far as a complete disappearance of the rash was concerned. The reason of the unpopularity of a treatment which cures four-fifths of the cases lies in the disinclination to administer such enormous doses of medicine when a much more moderate dosage of another drug, viz: arsenic, is even more successful in causing the disappearance of the eruption. Haslund declares that in the great majority of patients the large dosage of potassium iodide is well borne; that none of them have suffered from mammary atrophy or disappearance of the testicles. No claim is made that iodide of potash will prevent the recurrence of the eruption.

Treatment of Favus.—SCHUSTER, of Aix-la-Chapelle, recommends the treatment of favus with the fumes of sulphurous oxide, applied in the following way: A pasteboard cylinder, open at both ends, and about twenty inches in height, is made of such a diameter as to fit closely the patient's head. The upper end may be closed either by a lid or by a tall hat turned upside down over it. At about the junction of the middle with the lower third of this cylinder a net-work is formed of threads drawn through its sides and across its lumen, constituting a sort of web on which a porcelain dish may rest. The holes through which the threads have been drawn ought to be rendered air-tight with wax. The cylinder must now be pressed well down on the head, and held in place with a bandage. A saucer containing some burning precipitated sulphur is placed on the net-work formed by the crossed threads. The upper end of the cylinder is closed, and the patient sits still for half an hour. The treatment ought to be carried out every day for six to eight weeks. The cutting of the hair, softening the crusts with oil, and frequent cleansing of the head with soap must be attended to as in other treatments.—*Monatshefte f. Prakt. Dermatologie*, July 1, 1889.

Galvanism in Parasitic Skin Diseases.—DR. J. A. WESSINGER, alluding to the tardiness and want of success of the usual methods of treating these diseases, advocates the employment of the galvanic current in driving the parasiticide into the skin. He maintains that, at a certain strength, galvanism itself is a parasiticide. The requisites for this treatment are: (1) An efficient galvanic battery. (2) A milliamperemeter —as a rule, 15 to 20 milliampères is a sufficient strength of current. (3) The current should be kept up for not less than ten nor more than twenty minutes. (4) The application should not cause pain or discomfort, as the efficiency of galvanism in these cases does not depend on the intensity or resistance of the current. (5) The strength of the parasiticide solution should be from 1:1000 to 1:500 (bichloride of mercury). This is strong enough, although others have recommended a 1 per cent. solution. Other parasiticides may be used in aqueous, alcoholic or ethereal solution. (6) At intervals of two or three minutes the positive electrode should be moistened in the solution. (7) When treating a large surface, the electrode should be held upon a given spot for several minutes, then lifted and placed upon another locality; the electrode should not be slid from one place to another. (8) The whole diseased surface should be gone over at one sitting. (9) The patient should receive the treatment every day. He reports four cases treated in this way; one of tinea favosa; two of tinea circinata, and one of tinea tonsurans. All were cured, the greatest number of sittings being ten.—*Journal of Cutaneous and Genito-Urinary Diseases*, July, 1889.

Blenorrhagia in the Female.—DR. HORAND, in a paper read before the Society of Medical Sciences, of Lyons, gives the result of his researches in 5,090 adult cases, and 764 cases occurring in young girls, treated in the Hospital of Chazeaux. The urethra in young children furnishes no secretion in the normal state. In virgins, from 16 to 20 years, there is sometimes obtained, on pressing the meatus, a drop of milky or caseous fluid, produced by folliculitis. It does not contain gonococci, nor is it contagious. In women who have sexual connection, there is often a urethral discharge, caused by follicular inflammation, or simple urethritis, and at other times by blenorrhea. Among 940 women, M. Horand records 146 cases of folliculitis and 288 of urethral discharge. In the follicular inflammation, gonococci were present in two cases only. Pure folliculitis is distinct from blenorrhagia; the presence of gonococci proving a coëxisting specific urethritis. A urethral discharge in women is not always blenorrhagic, and the latter form is not frequent among hem. The non-contagious discharge in the female urethra appears as a result of excessive venery, intemperance, irritation of the urethral mucous membrane, and constitutional affections. In most cases, blenorrhagia in the female exists without complications, and passes unnoticed; it may last for months and years. Vulvitis is rare in the adult; more frequent in infancy and childhood. It may be irritative or blenorrhagic. It exists alone, or associated with a vaginitis or a urethritis of like nature. There is a slight tendency to extend to the vestibule. Vaginitis is much more frequent than vulvitis, and, like the last, is irritative or microbic in its origin. It is rarer in adults than in children, in whom it is more lasting. The gonococci probably remain in a latent state in the vagina. In the non-blenorrhagic woman, the menses are regular, and the flow pale and non-contagious. Uterine blenorrhagia is very rare. It may be complicated by pelvic peritonitis. A vaginitis always coëxists. Inflammation of the glands of Bartolini is a secondary result, due to extension of the blenorrhagia. Anal blenorrhagia is relatively frequent in the adult female. It never exists alone. Horand has never seen a case of auricular, nasal or buccal blenorrhagia. In examining 483 women, he found the urethra to be most frequently the seat of inflammation (143 times), while in children the vagina is the seat of preference. Gonorrheal rheumatism and ophthalmia are very rare in the adult. This last disease is, on the contrary, frequent in the new-born. In the treatment of urethral blenorrhagia, injections of nitrate of silver give the best results. In the blenorrhagic vaginitis of children, hot irrigations of $\frac{1}{10}$ of 1 per cent. boric acid are frequently employed; insufflations of powdered iodoform are also used. In the adult, painting the vagina every four or five days with solid nitrate of silver is good practice. The same treatment should be employed when the disease occurs in the cervix uteri or in the anus.—*Union Médicale*, August 15, 1889.

MATERIA MEDICA AND THERAPEUTICS.

By WM. WATT KERR, M. A., M. B., C. M., Professor of Clinical Medicine, University of California, San Francisco.

A Contribution to Our Knowledge of the Physiological Action of Antipyrin.—A series of experiments to determine the action of antipyrin in megrim and kindred diseases, has been conducted in the laboratory of Dr. Lauder Brunton by DR. RAYNER D. BATTEN and DR. S. J. BOKENHAM. The conclusions are that the whole effects of the drug are due to its direct or indirect action on the nervous system, the influence being chiefly exercised upon the cord, but also on the brain and motor nerves. Endeavors were made to ascertain the tracts of the cord specially affected, and the development of spastic gait, increased myotatic irritability with all its attendant phenomena, warrant the supposition that the lateral columns are peculiarly susceptible to the action of the drug. As regards the action of antipyrin on the brain of mammals, nothing definite can be said at present.—*British Medical Journal*, June 1, 1889.

Antipyrin in Diabetes Mellitus.—The attention of the profession has been called to this subject by several well known French physicians, notably GERMAIN SÉE. This gentleman was first attracted to it by noticing the disappearance of sugar from the urine of a diabetic patient to whom he was administering antipyrin for the relief of neuralgia, and further experiments on purely diabetic patients confirmed his belief in the value of the drug in the treatment of diabetes mellitus. His theory is that there is an over-production of glucose, and, consequently, the treatment must consist: (1) In the use of drugs which depress the nervous system, and thereby lessen the chemical and nutritive activity of the body; and (2) To reduce the sources of glucose by giving chiefly a flesh and fat diet. The first indication is met by antipyrin, which has, in a remarkable degree, the power of depressing the excitability of the central nervous system, and at the same time lessening the excretion of urinary solids and water. Hence, there can be no doubt that the entire bodily metabolism is retarded by it. The second indication is met by dietetic treatment. Sée has observed 18 cases, in five of which the prognosis, owing to tubercle or rapid emaciation, was hopeless from the beginning. The other 13 were typical cases, and all of them improved rapidly in from three to twenty days, the urgent symptoms passing off, and the sugar falling to a few grammes or entirely disappearing. Various complications, such as boils, eczema, pruritus and neuralgia, disappeared at the same time. The best results are obtained by the administration daily of 48 grains of antipyrin, in three doses. Sée is strongly of opinion that the dietary should contain about seven ounces of fresh bread, and the same quantity of boiled potatoes, in the 24 hours. This, he points out, satisfies the craving of the patient for carbo-hydrates, and has a good effect on his general health, while both articles of food, owing to the large percentage of water which they contain, really convey less starch to the patient than the toasted bread or dried crusts, which are so often allowed.—*American Journal of Medical Sciences*, August, 1889.

Phosphorus in Small Doses in the Treatment of Rickets.—For two years DR. MANDELSTAMN of Kazan, in Russia, has been using small doses of phosphorus in the treatment of rickets. The dose was one centigramme of phosphorus in 1,000 grammes of cod liver oil, one desertspoonful once or twice daily; the treatment being kept up for several months, or even for a year. In cases where catarrh of the stomach and intestines exist with tenesmus, these conditions should be removed before the administration of phosphorus is commenced. He concludes, "clinical observations perfectly justify the employment of phosphorus in rickets. Phosphorus acts better, more quickly and more surely than any other drug. The administration of the drug for a long time in small doses is well borne by children, and does not produce any ulterior effects. Phosphorus acts favorably, especially in cases of symptoms depending upon the ricketty diathesis. Under the influence of phosphorus, in the great majority of cases, the development of the disease is directed." —*Medical Press and Circular*, July 17, 1889.

Biborate of Soda in Epilepsy.—DR. J. D. MUNSON, Medical Superintendent of the Northern Michigan Asylum, in his last report, gives his experience with biborate of soda as a substitute for bromides in the treatment of epilepsy. He states that "it has been found quite equal to the bromides in controlling the seizures. In some cases it has been found superior. It is prompt in its action and does not affect badly the general condition, and is usually well borne after the first few doses. Biborate of soda tends to constrict the peripheral blood vessels, and to this fact is doubtless due its beneficial action in epilepsy. In epileptics with high arterial tension, borax is sometimes harmful, while in those with low arterial tension, but strong heart action, it is most apt to be useful." In cases with weak heart it acts badly, probably by its vasomotor action obstructing still more the outward flow of blood. Among the drawbacks to its use, he gives the following: "Given regularly in moderate doses it is apt to affect the nutrition of the scalp; the hair becoming rough and brittle, and in one or two cases alopecia has followed its use. A troublesome psoriasis is occasionally induced, which, according to our experience, has not yielded readily to treatment, nor has the simultaneous administration of Fowler's solution always prevented its appearance. In one case a suppurative inflammation of the middle ear was always induced by the use of the biborate." The drug should only be given after meals, and its administration alternated with that of the bromides.—*Medical News*, August 10, 1889.

MEDICINE AND PATHOLOGY.

By ALBERT ABRAMS, M. D., Demonstrator of Pathology, Cooper Medical College, San Francisco, Cal.

Syphilis of the Lung and Pleura.—A series of lectures delivered on this subject by DIEULAFOY, are of great interest. Anatomically, three forms of lung syphilis may be differentiated, viz: A form characterized by the presence of gummata, a form of disseminated sclerosis, and a form combining the characteristics of both. He adopts the following clinical types of lung syphilis: (1) Acute tuberculous broncho-pneumonia. (2) Tuberculous phthisis. (3) Broncho-pulmonary syphilitic sclerosis, with pulmonary tuberculosis. (4) Pulmonary syphilis, combined with tuberculosis. (5) Early or late hereditary pulmonary syphilis. In certain cases lung syphilis presents the same clinical course as acute tuberculous phthisis, and is differentiated from the latter by the history and its amenability to treatment. The physical symptoms of this form are, generally speaking, similar to that of tuberculosis, although the lesion is most frequently confined to the middle lobe of the right lung, in the region of the third and fourth intercostal spaces. The dyspnea is out of all proportion to the extent of the lesion. The presence of other syphilitic manifestations, together with the absence of bacilli in the sputum, indicate the specific nature of the affection. Syphilitic phthisis, with a slow course, develops from the breaking down of gummata. In this form all the symptoms of phthisis may develop. The third form is characterized by a hyperplasia of the pulmonary connective tissue. Syphilis of the pleura may occur as a primary affection, or secondary to lesions of the lung. Severe dyspnea characterizes this syphilitic affection. A combination of syphilis and tuberculosis may occur in two ways: either by the development of syphilis in a tuberculous individual, or tuberculosis in a syphilitic patient. In the former instance, syphilis increases the anemia and weakness. Tuberculosis usually develops in the tertiary period of syphilis. Hereditary syphilis can occur early or late. The former is only of pathologico-anatomical interest, inasmuch as it occurs in syphilitic feti. The late form is more often encountered in children than is supposed. A large number of children, often considered scrofulous, are in reality suffering from hereditary syphilis. Death in lung syphilis is either due to the cachexia or supervening phthisis. Dieulafoy insists, in all cases of tuberculosis, to carefully search the history for previous syphilitic inoculation, and, when this is established, to at once commence inunction treatment, coupled with the administration of large doses of iodide of potassium.—*Gazette Hebd. de Med. et de Chir.*, Nos. 18—23, 1889. [Pertinent to this subject, a case recently under my care may be cited. The patient, an adult male, presented the following symptoms: Rapid emaciation, hemoptysis, cachexia, exacerbations of temperature, night sweats, and expectoration. Examination of the sputum showed elastic fibres only. Repeated examination failed to find the bacilli of tuberculosis. Examination of the apices was negative. There was circumscribed dulness in the right interscapular region. No history of phthisis—syphilitic inoculation two years previously. Diagnosis: Pulmonary syphilis. Treatment: Inunctions of mercury and large doses of iodide of potassium. Result: Disappearance of dulness and complete recovery.—A. A.]

The Night Sweats of Phthisis. — ROSENBACH recommends for this trouble the application of an ice bladder to the abdomen for a few hours during the night. It is well borne and more efficacious than atropine or other remedies.—*Schweiz. Corr. Bl.*, No. 12, 1889.

The Suspension Treatment in Chronic Nervous Diseases. — PROFESSORS MENDEL and EULENBURG subjected 40 polyclinic patients (31 men, 9 women) to the suspension treatment. Among these were 34 with tabes dorsalis, 1 each disseminated sclerosis, chronic myelitis, traumatic neurosis, and 3 cases of paralysis agitans. No result was obtained in the cases of chronic myelitis and traumatic neurosis. The case of disseminated sclerosis was favorably influenced after 16 suspensions. The hyperesthesia and paresthesia, as well as a paresis of both motor-oculi, disappeared. In one case of paralysis agitans many of the symptoms improved, but the tremor was not influenced. The tabetic cases were almost exclusively chronic, and had resisted the conventional treatment. The sleep, and general condition, improved in 34.16 per cent. of the cases. Improvement was also noted in the functions of the urinary bladder. They conclude that this treatment is not useless, but should occupy the same therapeutical position as other methods employed in tabes. ERB likewise expresses himself in favor of the suspension treatment, and considers that a long period of observation will alone establish its value as a therapeutic agent.—*Deutsche medicin. Wochenschrift*, June 20 and 27, 1889.

The suspension treatment having come into general use, CHARCOT discusses the many contraindications for its employment. Thus far, three deaths the direct consequence of this method of treatment have been reported. In two of the fatal cases, suspension practised in the absence of the physician, resulted in the slipping of the chin support; the patients dying from suffocation. The following are the contraindications: (1) Special conditions of the system. (2) Diseases of the lungs, blood-vessels and nervous system. (3) Certain local changes. Organic weakness the result of a nervous disease and anemia prohibit its use. Edema and obesity are not direct contraindications; but, if existing, should receive due consideration. Suspension increases the frequency of respiration and diminishes the amplitude of inspiration and expiration. These facts render it a hazardous procedure in all chronic affections of the respiratory organs. Diseases of the circulatory apparatus can be unfavorably influenced by suspension. In advanced atheroma the danger of rupturing the axillary arteries must be borne in mind. The pulse frequency and blood pressure being increased during suspension, its use should be interdicted in all diseases of the heart and large blood-vessels. The contraindications, as dictated by diseases of the nervous system, are but little understood. Nervous diseases, attended by spasmodic symptoms, such as paraplegia, with an increase of the reflexes, *Sclérose en plaques*, etc., are contraindications. A tendency to vertigo can in certain cases prohibit its use, but the liability to vertigo may in a measure be prevented by engaging the patient in conversation during the act of suspension. The condition of the teeth must be determined; sound teeth only, allow of the proper adaptation of the chin-piece. Finally, attention must be directed to the occurrence of spontaneous fractures, which frequently take place in tabetic patients.—*Wiener medizin. Presse*, June 23, 1889.

BERNHARDT reports that during the suspension of a tabetic, the patient lost consciousness, and convulsions occurred. DR. BRUNS also reports a case, with similar symptoms during suspension.—*Berliner klin. Wochenschrift*, July 8, 1889.

PROF. BERNHARDT (Berlin) suspended 21 patients 256 times. Duration of suspension from ½ to 3 and exceptionally extended to 4 minutes.

The cases were mainly tabetic. He notes, as a rule, improvement of pain and locomotion. In one case, diplopia, which was present, disappeared, and in another, deafness existing for years in one ear was cured. In no case was a return of the pupillary and patellar reflexes observed. — *Berliner klin. Wochenschrift.* No. 24, 1889.

PROF. DE RENZI (*Rivista clinica e terapeutica.* No. 3) reports a case of chronic spinal meningo-myelitis cured by suspension. A peasant, æt. 34, suffered from severe pain in the lumbar and sacral regions with formication in the lower extremities. This was followed by motor disturbances and weakness of the sexual functions. After 5 suspensions the patient was completely cured. De Renzi attaches great importance to the execution by the patient of active movements in the lower extremities during the act of suspension. — *Wiener medicin. Presse*, August 18, 1889.

The Treatment of Pertussis.—According to O. NAEGELI, this is a general infectious disease, localized in the larynx, and characterized by a reflex neurosis of the superior laryngeal nerve. The spasmodic paroxysms in whooping-cough are the most dangerous symptoms. He adopts the same procedure for curtailing a paroxysm as is usually practised when respiration is suspended during chloroform narcosis; the object being to combat the tonic spasm of the laryngeal muscles. It consists essentially in grasping the rami of the lower jaw with the index and middle fingers, and, with the thumbs resting on the chin, directing the maxilla downwards and forwards. By this simple manipulation the paroxysms are controlled in a few seconds. The following conclusions are reached: (1) The paroxysms of whooping-cough, by this manipulation, can with certainty and in a few seconds be controlled. (2) Parents, as well as attendants, are enabled to execute this simple procedure. (3) The manipulation for the patient is neither disagreeable nor painful. (4) Controlling the paroxysms has a favorable influence on the course of the disease, reducing the liability to complications and mortality. (5) Spasmodic cough of different origin can also be controlled by this method. *Muenchener medicin. Wochenschrift*, August 20, 1889.

Carbonic Acid in the Treatment of Phthisis.—DR. HUGO WEBER refers to the observation of Halter, that laborers in lime-kilns are peculiarly exempt from phthisis. This led, as is well known, to the use of the hot air treatment in this disease, based on the supposition that the high temperature was inimical to the development of the bacilli tuberculosis. If this were the only factor involved in limiting the development of the disease, then other laborers, exposed to a similar high temperature, would exhibit a like resistance. This, however, is not the case. Dr. Weber attributes the immunity enjoyed by lime-kiln laborers to the inhalation of carbonic acid. Reference is made to diabetic patients who are especially predisposed to phthisis. The theory of Ebstein, that carbonic acid is diminished in diabetes, is brought forward as an explanation for phthisical invasion. During pregnancy, phthisis remains dormant. This fact is explained by supposing that the tissue metamorphosis of the fetus yields to the maternal organism an excess of carbonic acid, which holds in check the phthisical process. After the birth of the child, an inordinate quantity of carbonic acid is no longer furnished, and the tubercle bacilli are not hindered in their propagation. The observation made by Traube, that patients with cardiac disease possesss a certain immunity from phthisis, is explained by the consequent hyperemia of the lungs interfering with respiration, thus conducing to the accumulation in the blood of carbonic acid. Dr. Weber takes therapeutical advantage of his hypothesis in two ways. (1) By increasing the production of carbonic acid in the organism. (2) By administering large quantities of it. The latter method is more practical. He directs his patients to take three times a day a teaspoonful of bicarbonate of soda; the patient having previously swallowed a glass of water containing 12 drops of dilute muriatic acid. Both preparations are taken on an empty stomach. One grain of bicarbonate of soda will yield 270 c.cm. of carbonic acid, or .52 gms. The histories of ten patients are given, who have followed this method of treatment, and which show no especial results, other than abatement of the cough, increase of appetite, and the subjective condition of feeling better.—*Berliner klin. Wochenschrift*, Sept. 2, 1889.

Dr. Valenzuela has recently recommended sub-oxygenated air in the treatment of phthisis. This he accomplishes by placing patients in a pneumatic chamber, in which, by the addition of carbonic acid, the percentage of oxygen is reduced. To the carbonic acid gas no direct remedial value is attributed, its presence merely increases respiratory activity, and the latter favorably influences the disease. [When BERGEON first promulgated his treatment of phthisis by rectal medication, with sulphuretted mineral waters, many writers, notably CAVIGNIS (Sociétè de Therapeutique, Nov. 24, 1887), ascribed the results achieved to carbonic acid. This author found that a 2 per cent. aqueous solution of carbonic acid would absolutely nullify the virulence of tuberculous matter, and that a 1.25 per cent. solution mitigated its activity. At that time anti-tuberculous inoculation experiments were carried out, although the results have never, to my knowledge, been published. Dr. Weber subverts, in order to accommodate his hypothesis, the usually accepted connection existing between diabetes and inflammatory lung changes, which is, that the blood surcharged with sugar and excretory products acts as an irritant, and conduces to disturbances of nutrition. That phthisis remains dormant during pregnancy is disputable. The immunity from phthisis in those suffering from cardiac diseases is an observation too old to stand the positive evidence of statistics. Thus FRONNELT collected 277 cases of valvular cardiac lesions, in 8 per cent. of which phthisis was present, and LEBERT demonstrated that congenital pulmonary stenosis was almost invariably followed by phthisis. Every consumptive virtually intoxicates himself with carbonic acid, owing, not only to lung destruction, but to pyrexia and degeneration of the myocardium. Two weeks have elapsed since this method of treatment was used in about 15 phthisical cases under my observation, and thus far with purely negative results. A. A.]

Syphilis and Tabes.—DR. E. SCHWARZ carefully reviews the literature on this subject, with a view of establishing the etiological connection of syphilis with tabes. Virchow, in 1864, referred to the relationship borne by these affections. Fournier, in 1876, demonstrated, in 34 tabetics, a history of syphilis in 24. Erb, in his original investigations, found syphilitic infection in 50 per cent. of his tabetics, although later this was increased to 89 per cent. Westphal could only trace a syphilitic history in 14 per cent. of his cases. Tabes belongs to the late manifestations of syphilis, from six to fifteen years after the primary lesion. Dr. Schwartz, after a careful investigation of 30 cases, observes that he was unable to find a case of tabes without a previous syphilitic history. Two arguments have been advanced in support of the view, that tabes is not of syphilitic origin: (1) Syphilis does not produce systemic lesions, and as tabes is a systemic affection of the spinal cord, it cannot be produced by syphilis. (2) Anti-syphilitic treatment is of no avail, which would not be the case were tabes of syphilitic origin. He says, with reference to the first argument, that hypotheses should not be employed in scientific discussion. The pathological anatomy of tabes dorsalis is not perfectly known, nor is the action of the syphilitic virus. The recent investigations of Rumpf show the identity of the connective tissue hyperplasia in the posterior columns of the cord in tabes, with syphilitic changes in other situations, and that the systemic localization is only secondary to the syphilitic infiltration of the blood vessels and surrounding connective tissues. Other poisons conducing to constitutional intoxication, are also capable of inducing systemic lesions of the spinal cord. Reference is then made to the action of lead in producing polio-myelitis anterior, and to ergot and diphtheria in producing tabes. To the second argument, the inefficacy of anti-syphilitic treatment, Schwarz refers to other pathological conditions, that, while produced by a syphilitic process, have nothing in common with syphilis. We do not expect that a hemiplegia, developed after a hemorrhage from a syphilitic blood vessel, will yield to mercurial treatment, nor can we expect a degeneration of the posterior columns provoked by syphilitic infiltration. In tabetic patients reported as cured, who have died of intercurrent affections, a typical degeneration of the posterior columns can always be shown. Pathological anatomy has demonstrated that undoubted syphilitic affections have failed to yield, even to the most energetic mercurialization. Rumpf reports cures in 20 per cent. of his tabetics, even in advanced stages, with mercurial treatment. He directs, however, the utmost attention to the nutrition of his patients while under treatment. During the administration of mercury he faradizes the body of the patient. Tabes with an undoubted spyhilitic history, usually pursues a mild course, and active treatment in the incipiency of the affection is enjoined.—*St. Petersburger medicin. Wochenschrift*, August 10, 1889.

Diabetes, and its Connection with Heart Disease.—DR. JACQUES MEYER has endeavored to ascertain whether any etiological connection could be traced between heart disease and the principal symptoms of diabetes, viz.: Glycosuria and azoturia. In 82 out of 380 cases examined, hypertrophy or dilatation of the heart was found. He also observed that in a considerable number of cases of diabetes hypertrophy and dilatation of the heart become developed without there being any morbid changes in other organs, such as the kidneys, arteries, etc., which frequently lead to these affections. The conditions favoring the cardiac changes are assumed to be sugar and urea in the blood, which act by chemical irritation of the heart. Diabetic patients eliminate more urea than healthy persons. Cases are on record where from three to five times the average normal quantity of urea has been excreted. With regard to sugar, it is well known that the quantity contained in the blood in diabetes far exceeds that which is found in the normal blood. The anatomical lesions of the heart in diabetes are considered as consequences of glycemia and azotemia. The records of the Pathological Institute of Berlin show, in 10 per cent. of diabetic cases which had proved fatal in the Charité, hypertrophy of the heart without valvular disease, and without affections of the arteries and kidneys.

Trichiniasis.—During an epidemic of this disease, NONNE and HOEPFNER, (*Zeitschrift f. klin. Med.*, Bd. xv, Hft. 5 and 6.) observed many new symptoms. In 17 per cent. of the cases, albuminuria was present; a condition denied by previous writers. Albuminuria was noted only in the severe cases, and was independent of the fever. In 60 per cent. of the patients an absence of patellar and triceps tendon reflexes was observed, although during health they are rarely wanting. These reflexes gradually recurred during convalesence. Anomalies in electrical irritability were present in many cases, although not to any marked degree, and consisted in the main of a diminution to direct and indirect faradic irritability. Anatomical examination of the motor nerve apparatus yielded negative results in three cases.—*Centralblatt f. klin Medicin*, August 24, 1889.

MENTAL DISEASES AND MEDICAL JURISPRUDENCE.

By W. H. MAYS, M. D.; Professor of Mental Diseases and Medical Jurisprudence, University of California, San Francisco.

Responsibility in Case of Death Following Treatment in Criminal Cases.—The *American Lancet* says the English Courts have lately decided that, in a case "where a wound is given, which, in the opinion of competent medical advisers, is dangerous, and the treatment which they adopt is the immediate cause of death, the party who inflicted the wound is criminally responsible" This decision was reached in a case in which it was sought to shift the responsibility from the person who inflicted the wound, upon the doctors who sought to save the man's life. Thus, the surgeon is free from more than ordinary responsibility in treating such cases. As a result, he will be inclined to undertake operations for the relief of the injury that otherwise he would not, and so give the accused a better chance of avoiding the charge of murder.

Optic Nerve Atrophy, Preceding the Mental Symptoms of General Paralysis of the Insane.—In a discussion upon this subject in the Section of Psychology, British Medical Association, DR. WIGGLESWORTH said that optic nerve atrophy was frequently met with in general paralysis; usually as a late symptom, though sometimes it occurred early. In a case of primary optic nerve atrophy, for which no cause was apparent, associated with obscure mental symptoms, the probabilities were that general paralysis would supervene. Hence, this sign might at times give valuable aid in diagnosis. DR. PERCY SMITH said that two cases he had seen at Bethlem bore out this fact. One was that of a man, aged 35, who was blind from optic atrophy on admission. There was a history of syphilis, and three years previous his sight began to fail, the failure progressing to total blindness. The duration of the mental symptoms had been only eighteen months, so that the ocular symptoms had preceded them by eighteen months. The knee-jerks were exaggerated, and there was no condition approaching locomotor ataxy. The patient eventually died in convulsions. The next case was that of a married woman, aged 45, who was admitted, suffering from general paralysis, with advanced optic atrophy. The duration of the mental disease from the earliest symptoms was said to be about eight months. There was no clear history of when the sight began to fail, but it was apparent that the optic nerve atrophy had been a very early sign and had progressed concurrently. The knee-jerks were also exaggerated. At the autopsy numerous cortical wastings were found.—*British Medical Journal.*

Insanity Treated by Massage.—DR. G. H. SAVAGE says (*British Medical Journal*) that of late there has been too great a tendency to treat all cases of neurosis by massage. This treatment was useless, and even harmful in some cases. In ordinary cases of insanity it was rarely useful; in cases of emotional self-consciousness it was bad, both the solitude and the bed being contraindicated. In hypochondriacal cases it was generally harmful, and in most cases of active melancholia it was not useful. He has hardly ever seen it do good in cases in which, with the emotional depression, there were well-marked delusions, such as those of unworthiness or ruin. Its chief use was in those cases in which the mental depression was associated with physical weakness, loss of flesh, and deficient action of the gastro-intestinal tract. In such cases, bed and feeding did well enough, as a rule, but in some massage acted more rapidly. The massage treatment should differ somewhat from that in common use. He preferred an ordinary medical nurse—a lady, if possible—to take the whole charge of the case. Massage should be looked upon as an important aid, but not as the chief means of treatment. It should be associated with cheerful companionship and some occupation, however simple. It should be continued as long as the general health was feeble, and as long as the appetite was poor. The object was like putting salt in food given by the stomach tube, to create a desire for food, and then to supply it in a suitable form and quantity.

Scientific Work by Alienists.—DR. STEPHENSON, in the *Boston Medical and Surgical Journal*, September 19, 1889, points out some defects in the methods of conducting asylums for the insane. He commences by reviewing a paper, recently published in the *Nineteenth Century*, by Dr. Tuke, with the title of "Lunatics as Patients, not as Prisoners." This eminent alienist says: "The structure and arrangement of any one of our pauper asylums," with "the constitution and duties of the medical staff," show that the "organization was begun on the motive of protection, and under the psychological (non-modifiable by treatment) theory of insanity. But what has been done for the disease of the brain? We seek in vain in our asylums for any evidence of systematic inquiry, and treatment based on modern notions of cerebral physiology. We find, indeed, chapels, ball-rooms, cricket grounds, but no hospital or laboratory for psycho-pathological research. Committees have but little sympathy with the scientific view. So far is this the case that I have known candidates for appointments objected to on the ground that they had scientific proclivities, and had no knowledge of farming." Dr. Tuke makes pertinent recommendations as to appropriate disposition, style and expenditure in architecture, changes in supervisional and medical duties, furnishing apparatus for observing, treating and teaching, and the benefits which will therefrom ultimately reach the public. Physicians in asylums should be allowed to fulfil the proper duties of their office, but not be required to do custodial routine service, for which properly trained attendants are quite competent. More cures might, in such conditions, be expected, and time secured for original investigation and progress, tending toward evolution of a rational system of treatment. In America, during recent years, the great number of applications for admission to asylums, and the pressure to provide accommodation for inmates put upon those in charge of administration, have hitherto practically prevented extended scientific work. Our Scottish *confrère* need not fear contradiction when he writes: "What every asylum requires, in order to become a truly curative institution, is a hospital for the treatment of recent and acute cases, separate and distinct from the main establishment, to which each patient should be consigned on admission. The cure of the curable insane is one thing; the care and treatment of the insane generally is another. The former is purely a medical question; the latter is a social one." Both have undergone and are susceptible of further great modification for the better, through the practical application of results due to systematic research and experiment. Experts must be obtained, in order that the material may be best utilized, both for the direct good of the individuals and their future betterment through progress in knowledge, that is, "scientific work." The doing of creditable work requires steady, reliable aid on the part of those in control. An able alienist lately said: "The hope of advancement in the care of the insane lies largely in the perfection of the appliances (and, may we add, a trained *personnel?*) with which we have to work, both for promoting the present welfare of the sick and for the prosecution of scientific inquiry." The Government (possibly through the agency of the Smithsonian Institute) might serve the general public by forming a "repository for hospital plans," those in charge, besides having other pertinent duties, being empowered to secure information from foreign sources, which would prove instructive to medical men, commissions and State officials. One immediate effect of this knowledge should be the much-needed improvement in the condition of the insane in the county almshouses, although mere "politics" yet seems to have an undue influence as to the control of such "homes" for the poor and friendless. The method of dealing with the insane in county asylums in Wisconsin is commended to careful attention.

The Etiology of Idiocy.—DR. G. E. SHUTTLEWORTH, Medical Superintendent Royal Albert Asylum, Lancaster, England, briefly refers (*British Medical Journal*) to the various etiological systems adopted by Séguin, Sengelmann, Langdon Down, Ireland, Kerlin, and others; and comments unfavorably upon certain oft-quoted American statements as to the causes of idiocy. He brings forward his own statistics with regard to the causes of mental defect in the 1,300 cases received into the Royal Albert Asylum, ranging the causes under three heads: (1) Those acting before birth. (2) Those acting at birth; and (3) Those acting subsequently to birth. He shows that in the vast majority of cases two or more factors contribute to the etiology. In his experience, the most common factors in the first group were. (*a*) A tubercular or scrofulous family history. (*b*) An insane or neurotic heredity. (*c*) Maternal ill-health during pregnancy, accident, or shock (the mother's account of the last to be received with caution). (*d*) Intemperance of one or both parents. Parental consanguinity and inherited syphilis were, no doubt, often causes, yet not so frequently as had been supposed. Under the second head, the influence of primogeniture is discussed; also that of instrumental delivery, as compared with unassisted protracted parturition. In the third class the most frequently assigned cause is eclampsia (infantile convulsions); but often times this may be the effect, and not the cause, of nervous instability. The febrile disorders of childhood, and their sequelæ, figure as causes in some 10 per cent. of his cases; and cases attributed to injury were almost as numerous. Parents' statements with regard to these matters need to be taken *cum grano*, as they are naturally disinclined to recognize or acknowledge congenital and ancestral defects. His experience leads him to deprecate the too hasty acceptance and publication of assigned causes, which have little scientific value till sifted, a process only possible as time brings to light the facts of family history.

PUBLIC HEALTH.

By W. R. CLUNESS, M.A., M.D., Sacramento, Cal.

Mortality.—The deaths registered in 85 town districts of the State during the past month, in a population of 813,350, correspond to an annual rate of 13.08 a thousand, the total mortality having been 891. 110 deaths were due to zymotic diseases, giving an annual rate of 16.2 a thousand. Of these, 32 were due to typhoid fever, 26 to cholera infantum, 20 each to diarrhea and dysentery, 8 to cerebro-spinal fever, 3 to scarlet fever, and 1 to whooping cough. 191 deaths resulted from diseases of the respiratory organs, giving an annual rate of 2.81. Of these, 118 were due to consumption, 50 to pneumonia, 14 to bronchitis, and 9 to pulmonary congestion, the rate being 1.74 and .737 for consumption and pneumonia respectively. 96 deaths resulted from diseases of the heart. The average annual death-rate from all causes, occurring in the ten largest cities and towns in the State, and representing a population of 612,000, was 13.55. The highest rate for the month, occurring in cities having a population of 10,000 or more inhabitants, was reported from San Francisco, the lowest from Eureka and vicinity.

California—Tabular Statement for September, 1889.

STATIONS.	TEMPERATURE.						RAINFALL.		Mean Relative Humidity	WEATHER.			WIND.	FURNISHED BY—
	Mean	Highest	Lowest	Mean Highest	Mean Lowest	Mean Daily Range	No. of Days Rain Fell	Total Rainfall		No. of Clear Days	No. of Fair Days	No. of Cloudy Days	Prevailing Direction.	
Auburn..........Cal.	71.9	98.0	46.0	------	------	------	0	.00	------	----	----	----	W.	Southern Pacific Co.
Berkeley......... "	62 5	87.2	48.5	74..6	54.7	17.7	0	.00	77.5	19	0	11	W.	Obs. Univ. of Cal.
Colfax........... "	72.6	97.0	54.0	------	------	------	0	.00	------	----	----	----	SW.	Southern Pacific Co
Eureka.......... "	56.0	77.0	40.0	63.1	48.8	14.3	4	.32	82.5	15	7	8	SW.	Signal Service U.S.A.
Fresno.......... "	75.5	105.0	50.0	92.9	58.2	34.7	0	.00	66.1	26	4	0	NW.	" " "
Keeler.......... "	74.9	97.0	50.0	86.8	63.0	23.8	1	.08	32.8	24	4	2	S.	" " "
Los Angeles.... "	69.1	103.0	52.0	84.8	60.3	24.5	1	.34	64.8	11	18	1	W.	" " "
Monterey....... "	65.0	88.0	50.0	------	------	------	0	.00	------	----	----	----	SE.	Southern Pacific Co.
Napa........... "	64.4	90.0	45.0	76 4	52.4	24.0	1	T	------	9	20	1	S.	Sta. Napa Ins. Asylum
Oakland......... "	63 19	93.0	49.0	79.33	57.66	14.08	1	.00	79.73	23	2	5	SW.&W	J. B. Trembley, M.D.
Paso Robles.... "	67.9	101.0	42.0	------	------	------	0	.00	------	----	----	----	S.	Southern Pacific Co.
Red Bluff....... "	76.0	105.0	52.0	90.4	61.5	28.9	0	.00	29.2	29	1	0	NW.	Signal Service U.S.A.
Sacramento. ... "	70.4	101.0	49.0	87.9	55.9	32.0	0	.00	50.6	31	0	0	S.	" " "
San Diego....... "	70.2	91.0	54.0	77.6	62.9	14.7	0	T	69.0	†22	†6	0	W.	" " "
San Francisco.. "	64.6	89.0	51.0	73.4	55.7	17.7	0	T	75.4	16	6	8	SW.	" " "
Santa Barbara.. "	68.8	99.5	51.0	78.0	62.0	------	0	.00	71.0	18	5	7	W.	Hugh D. Vail.
Santa Cruz...... "	67.5	93.0	50.0	------	------	------	0	.00	------	----	----	----	S.	Southern Pacific Co.
Yuma...........A. T.	83.8	106.0	58 0	98.0	69.7	28.3	0	.00	45.8	29	0	1	S.	Signal Service U.S.A.

* Precipitation from fog. Blank (----) indicates data missing. † 10th and 11th Observer sick; no observation.

Occidental Medical Times.

JAMES H. PARKINSON, L. R. C. S. I., EDITOR.

COMMUNICATIONS are invited from all parts of the world. When necessary to elucidate the text, illustrations will be furnished without cost to the author.

SACRAMENTO: ~~OCTOBER~~, 1889.
November

THE SEWERAGE OF LOS ANGELES.

The city of Los Angeles, that has for years moved along in a quiet, uneventful way; a peaceful burgh of perhaps 20,000 inhabitants; awoke to vigorous life when the possibilities of its climate and surroundings had been duly advertised. With the influx of people and capital, a marvelous growth took place; so rapid that it becomes difficult to realize the changes, even in the face of the country. The population increasing by thousands, until it is estimated to-day at 80,000, taxed the facilities in water supply and sewerage till they proved quite inadequate. The demands upon the latter were most severe, for the number of cement walks laid throughout the new city, with the miles of asphalted streets, provided a water-shed of enormous proportions. These factors, coupled with the steep grades in parts of the city, produced flooded streets and basements with annoying frequency. On the other hand, the absence of facilities for the disposal of excreta began to be felt, in the construction of large business blocks and the concentration of population in a limited area.

Los Angeles, doing nothing by halves, determined that a complete system of sewerage must be built. A plan was selected, by which sewage and surface water would be carried direct to the ocean at Ballona; the right of way was secured, and the people were asked to vote $1,800,000 for the outfall, sewer and interceptors. Public opinion was far from unanimous, and the question early assumed a partisan aspect. The daily papers took sides vigorously, and our esteemed contemporary, the *Tribune*, spared neither space nor typographical art in the good cause of sanitation. The election gave a majority of 800 for the bonds, but, as two-thirds was required, the new system must wait. Both sides should have rested here ere beginning the fight anew, instead of indulging in mutual recrimination. Deaths from diphtheria and enteric fever were published and magnified, until the impression has got abroad that Los Angeles' sewerage is in such a condition that the city is very unhealthy. Several of our eastern exchanges have commented on the unsanitary condition of the city, in connection with the failure of the sewerage scheme. That this is directly opposed to the facts, can be seen from the following figures: During the first four months of 1888, in an estimated population of 70,000, the total number of deaths from enteric fever was 12, and from diphtheria 14, giving a mean monthly mortality of .51 and .59 respectively. During the remaining five months of the year, when the population had been placed at 80,000, the figures were 12 and 16, giving a rate of .36 and .48. For the first nine months of the present year, in an estimated population of 80,000, we find that there were 27 deaths from enteric fever and 40 from diphtheria, giving an annual rate of .43 and .66. We do not advocate the suppression of the truth, but the friends of improvement should bear in mind that vivid word painting for home perusal is likely to damage the reputation of a city amongst a larger circle of readers abroad.

It is by no means certain that the outfall scheme, as proposed, was the best attainable. Water carriage is wasteful and unscientific, while in this case it had not the merit of cheapness. We believe that the chief objection to the scheme lies in combining sewage and surface water in one system. A typical sewer should not be of greater capacity than is actually needed. The flow through this should be as nearly as possible uniform to ensure flushing. Large drains with small discharge become gradually foul and finally degenerate into elongated cesspools. The artificial flushing of large sewers is a difficult matter, as to be effectual, the head of water should be sufficient to almost fill the lumen of the drain. Throughout California this sewerage problem is very similar. There are two seasons, a wet and a dry, tolerably sharply divided. The rainfall occurs during a few months, the actual number of days during which rain falls being few. Surface water drains must be of considerable capacity to receive and rapidly remove a large volume of water, and during several months of the year they will be practically dry. Thus, in Los Angeles, for the ten years from 1878 to 1888, the greatest annual rainfall was 40.39 inches, the least 5.53

inches and the mean 16.51 inches. The average number of days on which rain fell during these ten years was 42, while the average number of days on which rain fell during the wet season (January to April), was 32, with a daily average rainfall of .70 of an inch. It will, therefore, be seen that during 10 years, the average number of days on which rain fell during the remaining *eight* months was only 10. It is, therefore, under our climatic conditions, impossible to safely combine the two systems. A grave objection to combining them is the danger of untrapping house drains by the sudden ingress of a body of storm water displacing gas, accumulated in the upper portion of the main sewer. This can be avoided during flushing by thorough ventilation, but a sudden and heavy rainfall places it beyond control. There appears to be no question that Los Angeles can dispose of its sewage on land to the south of the city at a comparatively small expense, and in the most approved manner, during most of the year. In the wet months, further facilities will be demanded, and are no doubt obtainable. A thorough drainage system must also be provided. A side issue has been raised by Santa Monica, that the construction of the proposed outfall at a distance of three miles, would injure, or even destroy, its reputation as a watering place. This is purely imaginary, as the discharge of sewage could neither be appreciated nor detected at such a distance. The need of an extensive sewerage system for Los Angeles is a pressing one, but our faith in the enterprise and energy of that city impels us to believe that it will soon be an accomplished fact.

CONTINUOUS MEMBERSHIP IN THE LOCAL SOCIETIES.

It is with profound gratification that we have observed the very favorable manner in which the clause making continuous membership in the local Society an essential for membership in our State Society has been received by the medical press and by the profession. It has, in fact, been universally commended, and has found favor in unexpected quarters, even amongst its original opponents. As might be supposed, considerable opposition was aroused when the amendment was first brought forward, and the enemies of the movement compelled the omission of certain clauses demanded by the original proposition. This opposition, arising partly through misconception, and partly from selfish motives, was but short lived. A careful consideration of the subject has resulted in the unanimous endorsement of the profession and the warm approval of affiliated Societies.

The weak point in our professional organization has been the independence and mutual irresponsibility of each unit to the other, and it was heretofore impossible in the State Society, save by cumbrous and unpleasant methods, to decide points that should never have arisen. We have always maintained that the local Society should be the ultimate tribunal before which the conduct of practitioners resident in its district should be judged. Yet, in the absence of a simple provision, the time of the State Society has been consumed in reöpening questions that have already been passed on by the local Society. In future these cannot arise, and the State Society is relieved of unpleasant and unnecessary work by constitutional provisions that are self-operative. The strongest argument in favor of the amendment is the controlling power that it affords, and the tremendous influence that it has placed in the hands of the local Society. It has been, unfortunately, common in the past for physicians to join the State Society, ignoring the local Society at their doors. Another aspect of this question is that, where practitioners have withdrawn from the local Society, but retained their membership in the State Society, thereby placing the local organization at a manifest disadvantage. Instances of the foregoing can be found in every county, and with their prevention an inevitable source of weakness has been removed.

The bearing of this question upon membership in the American Medical Association is not as definite as we would wish, and may require amendment at the hands of that body, as its importance is recognized. Meanwhile *The Journal* of the Association, in commenting upon the action of the State Society, most heartily endorses the movement. It says: "We are glad to note this as a real advance in a proper direction. In a number of States the State Society only exists as the parent head of the county or other local Societies. This we believe to be the only proper means to secure the organization of the profession and to control those who are inclined to irregularities." This journal initiated and steadily advocated the amendment, believing that the local medical societies were the most important units of our medical organization, and the wide endorsement of our position is the best evidence of the correctness of this view.

NOTES.

The *Gazette de Gynécologie* will, in future, be edited by DR. PHILIPPEAU, Its former editor, DR. P. MÉNIÈRE, who has for some time been in poor health, has retired from practice.

THE AMERICAN ACADEMY OF MEDICINE is endeavoring to make as complete a list as possible of the Alumni of Literary Colleges, in the United States and Canada, who have received the degree of M. D. All recipients of both degrees, literary and medical, are requested to forward their names, at once, to Dr. R. J. Dunglison, Secretary, 814 N. 16th street, Philadelphia, Pa,

A Novel Catheter.

For fertility of resource and ingenuity the following expedient, reported by DR. SANFORD A. KELLY, in the *Medical News*, is decidedly noteworthy. The doctor had been called to a case of peritonitis, and found on arrival that his patient, a boy, was suffering from retention of urine. No catheter was at hand, and none nearer than a distance of 18 or 22 miles, to different points. He therefore thought that he would try an original plan of his own. He procured several long stems of what is known as buttercup or yellow daisy crowfoot (*Ranunculus*). The stem was rubbed down very carefully, so as not to break any of its longitudinal fibres, then oiled, and the patient's water drawn off as well as if he "had one of the best catheters." The boy's age is not stated, but he was "large for his age, weighing 140 pounds."

Chicken Cholera and the Rabbit Pest in Australia.

The hope that in the microbe of chicken cholera a remedy had been found for the destructive little rodents with which Australia is plagued, seems destined to be disappointed. A correspondent says: "I am afraid the chicken cholera has proved a complete failure, as regards exterminating the rabbits. Pasteur's representatives were engaged for a long time in making experiments on an island in the harbor of Sydney, but they proved a failure and nothing has come of them. I believe the very high temperature of the inland districts of Australia would prove fatal to the cholera germs. However, there has been some good derived from their visit to the colony, namely: the great success which attended some experiments that were made in inoculating sheep with anthrax. This disease is very prevalent in the colony, and the inoculations have proved to be completely successful in protecting sheep from its ravages." It is extremely doubtful that any infective agent will be discovered which, while destructive to rabbits, will not also prove injurious to other animals.

Arrest of the Night Cries of Hip Disease by Flexing the Leg.

In the *Boston Medical and Surgical Journal* DR. J. E. GOLDTHWAIT reports a case of hip disease in which severe "night-cries" were completely relieved by flexing the leg. The patient, a girl aged 6 years, had been under treatment for hip disease during the previous six months and had been admitted to hospital on account of crying out in her sleep. She was at first placed in bed and the leg fixed by sandbags with an extension weight of four pounds. This failing to give relief, ten grains of salicylate of soda was given four times a day. As a rule, this salt arrests the cries in a day or two, but in this case, at the end of two weeks it had produced no effect. Meanwhile the extension weight had been doubled, but without relief. The leg was then flexed, at an angle of thirty degrees with the bed, and the weight raised to pull in the same direction. After the first night this afforded complete relief. On omitting the flexion for two nights she again cried out and ceased upon resuming it. The treatment was continued during her stay in hospital, the leg being flexed at night only, with complete relief.

Death from Sulfonal.

This drug, which has been regarded as amongst the safest of the new hypnotics, seems to be no exception to the rule, that, under certain circumstances, all soporifics may be followed by fatal consequences, even in ordinary doses. DR. R. R. PETIT, in the *Medical News*, reports a fatal case following the administration of 30 grains of sulfonal in two doses, at an interval of 1¼ hours. The patient, a female, æt. 28 years, with a well-marked nervous history, had become insane, the type being melancholia. Chloral, bromide of potassium, and cannabis Indica were used to procure sleep, but were unsatisfactory. Forty minims of paraldehyde was given, without any effect whatever. Next day she received no medicine; the following night the sulfonal was given. She went to sleep after the second dose, and at the end of 12 hours was sleeping naturally. During the next 12 hours she could be roused enough to swallow, and even to talk rationally, but when left alone at once went to sleep. Eighteen hours after taking the medicine, the pupils were contracted, and $\frac{1}{100}$ gr. of atropine was injected hypodermically. After this, and till near death, the pupils were normal. Strychnine, up to $\frac{1}{12}$ gr., was also injected, and the faradic current and diffusible stimulants were used, but without any effect. At the end of 23 hours the respiration began to fail, but, as the pulse was good, artificial respiration was kept up for several hours. Cyanosis increased and the patient died from respiratory failure 40 hours after the sulfonal had been taken.

A Pathological Nuisance.

MR. HENRY A. RILEY says (*Medical Record*) that the law of nuisance has been invoked many times to prevent an exceeding variety of acts, sounds, or smells. One of the most curious cases has lately been before the English courts, the object being to prevent a gentleman who was suffering from softening of the brain, and who was rather a noisy individual, from living next a boarding house. The Court, in deciding the question, said: "I have not been able to discover any precedent which is precisely applicable to the state of things presented by this case. Sick people must live somewhere, even if they make a noise. When we consider how the great majority of people in this country have to live, and in what houses, it would be absurd to hold that a man or woman, who had a painful wound, and who screamed when it was dressed, or that a hysterical woman, or a person subject to fits, during which he makes a noise, was only to live in an isolated house, or one the walls of which are of a certain thickness." This seems to be the only conclusion that would be possible under the circumstances.

The Status of the Medical Practitioner of To-day.

In its "Introductory Remarks," contained in the "Student's Number," the *Medical Press and Circular* says: "The social status of the medical man undoubtedly tends to improve, and bears some proportion to the improvement in his general and professional education. Still, as this rise is, after all, only part of a great and general ascensional movement, the effects of which are apparent in every direction, the benefits, from a social point of view, are only relative. It cannot be doubted, however, that the general practitioner of to-day compares very favorably with those of past times; the scope and variety of his information, as well as his practical knowledge of medicine and surgery, being of a far higher character than sufficed twenty or five and twenty years ago.

And that this fact ensures a more scientific treatment of disease, may also be fairly assumed, although it is often asserted that, judged by results, this is not the case. But, unquestionably, the country doctor of the present age does exert an influence which his forerunner never could command; an influence depending less on his knowledge and administration of drugs than on the advice he can give in respect to the adoption of general rules of hygiene." This is perfectly true of the better class of practitioners in the United States to-day, and as the leading colleges gradually raise the standards of examination, the number will steadily increase. It seems that if the educational problem is ever to be solved in this country, it will be through the agency of State examining boards. The excellent work that has already been done by the Virginia Board is an index of what might be accomplished by the establishment of one in every State.

The Sterilization of Feces.

It is generally accepted that the infective agent in enteric fever is contained only in the evacuations of the patient. The thorough disinfection of these discharges is, therefore, a matter of great practical importance. DR. CHARLES J. FOOTE reports the result of a series of experiments upon this subject in the *American Journal of Medical Sciences*. Normal feces were used, but he says that the probability is very slight that different results would be obtained where pathogenic germs are present, as the germs contained in normal feces are as resistant as any, and far more so than the bacillus typhosus, or the comma bacillus. The disinfectants were mixed with the feces, and, after a certain number of hours, culture mediums were inoculated from the mixture. In opposition to the generally received opinion, he finds that sulphate of iron is totally inefficient, both as a disinfectant and deodorizer. His conclusions are, that "the best disinfectants to use are the bichloride, with hydrochloric acid, the bichloride, with potassium permanganate, and the chloride of lime. Five per cent. solutions of carbolic acid, and two-tenths per cent. solutions of the bichloride are unreliable, even when used in the proportion of one pint to every 100 c.c. of dejection. Emphasis needs to be laid on the necessity of thorough disintegration of the fecal matter by stirring with the disinfectant, and on the necessity of allowing the mixture to stand four hours, at least, before emptying. For continued use the bichloride solutions would injure lead pipe, while, if used for a few days only, probably no injury would result. For long-continued use, where the dejections are thrown into a water closet, chloride of lime is undoubtedly the most available disinfectant. Solutions of chloride of lime should be kept tightly corked, and should not be used after they are one week old."

The Contest in the State Board of Health.

The suit of DR. J. R. LAINE for the recovery of the seat in the State Board of Health, now held by DR. G. G. TYRRELL, was again before Judge Van Fleet upon its merits, the demurrer of defendant having already been overruled. The learned Judge in rendering his decision says:

> "The Court finds that in March, 1884, and during a recess of the Legislature, F. W. Hatch was appointed by the Governor a member of the State Board of Health, to fill a vacancy then existing. He duly qualified and held the office until November, 1884, when he died. That after the death of Hatch—to wit, on the 17th day of November, 1884, and during the recess of the Legislature, the Governor, by his commission, appointed G. G. Tyrrell in place of Hatch. That in the commission it was recited that defendant was thereby appointed 'a member of the State Board of Health, *vice* F. W. Hatch, deceased, for term expiring January 11, 1888.' That defendant filed his oath of office, and at once took possession of the office, and has held it since. The Court further finds that the Senate which convened in January, 1885, attempted to confirm the appointment of Tyrrell, but that no commission or certificate of appointment to said office, further than that of November 17, 1884, has ever been granted or issued, and defendant has never since said 19th day of November, 1884, taken the oath of office as a member of the Board. The Court concludes that defendant could only hold the office under the appointment of November 17, 1884, until the adjournment of the next Legislature on March 11, 1885, and that he has not been since, and is not now, entitled to hold the office. That on the 11th day of March, 1885, the office became vacant and so remained down to the appointment of the relator. That the appointment of the relator (Laine) was valid and he is entitled to the office."

The facts submitted in this case were the same as those contained in the demurrer. The defendant has now moved for a new trial. It would, therefore, appear that there was a disposition rather to delay the case by every legal means than to obtain a speedy and final decision upon the question. When this becomes apparent the profession will understand the real aspect of the case and blame must rest where it belongs.

Cholecystectomy by the Suppurative Process.

DR. H. C. DALTON reports, in the *St. Louis Medical and Surgical Journal*, the following remarkable case: A man, aged 26 years, was admitted to hospital November 30, 1888, having had a chill two weeks before, that had returned every other day for nine days, when diarrhea developed. A large indurated and tender tumor, giving marked dulness on percussion, was found in the right iliac fossa. The temperature on the day after admission was 101° F. An incision, about six inches in length, parallel with and two inches above Poupart's ligament, evacuated about five ounces of pus. The appendix was adherent to the bottom of the wound, and the lower free, three-fourths tied off. Two perforations were found at its middle, about an inch in diameter. Two pieces of gangrenous omentum were ligated and excised. During examination of the sac, its bottom was ruptured, opening the general peritoneal cavity. This was washed out with sterilized water, and a large glass tube, extending to the bottom of the pelvis, inserted. December 11th, an edematous swelling appeared between the tenth and eleventh ribs, in the right axillary line. An aspirator needle, passed into the liver at this point, struck pus about two inches from the surface, and a free incision evacuated about four ounces. On December 17th, inspissated bile was noticed in the dressing. On the 23d, a piece of necrotic tissue, the size of a small hen egg, was removed from the pus cavity, and on microscopical examination was found to be the entire gall bladder. About this time a fecal fistula was discovered in the wound in the iliac region. The patient was now much emaciated, and for several weeks the temperature ranged between 102° and 104° F. During this time a large amount of bile passed through the upper wound; the fecal fistula also remaining open. The stools were quite white. After this, the color of the feces became normal; the abscess in the liver gradually decreased in size; the flow of bile also diminishing, and the fecal fistula disappeared. April 1st, both wounds had closed, and the patient was in good condition. Dr. Dalton believes that there was primarily suppurative appendicitis, the pathogenic microbes getting access to the mesenteric veins, and through the portal vein to the liver, where, by metastasis, other abscesses were formed. A perihepatitis in this case caused an agglutination of the lower surface of the liver with the neighboring intestines, forming a sac which enclosed the gall bladder. This was subsequently detached and discharged. The sac previously formed by the inflammatory process, probably, at present represents the substitute for the gall bladder.

Luxation of Fourth Cervical Vertebra, Hemiplegia, Reduction, Recovery.

The surgical treatment of fractures and displacements of the vertebræ is now a well established procedure. The hopeless nature of these cases when untreated, justifies any effort at relief, and the success which has attended operative interference fully warrants the attempt. DR. ERNEST LAPLACE, in the *Times and Register*, reports a case of dislocation of the fourth cervical vertebra successfully treated by operation. The patient, a man aged 40, when loading a ship, was struck on the neck by a bale of cotton falling upon him, and crushing him to the floor of the hold. He was unconscious for six hours. On recovery it was noticed that the patient's head was drawn considerably to the left side, that it was immovable, and that there was complete paralysis of the left side of the body. This condition continued for about two weeks, when he gradually recovered sensation and motion in the paralyzed leg, but there was no improvement in the arm. Two months after the accident, there being no improvement, he was seen by Dr. Laplace. There was anesthesia of the left arm and shoulder as far as the middle of the neck, no grasping power in the hand, and slight atrophy of the parts. There was considerable pain in the neck, the head being much drawn towards the left side. The underlying tissues of the neck were doughy to the touch, and there was a sensitive spot over the fourth cervical vertebra; pressure on this point developed a deep crepitation. It was supposed that there was a fracture of the spinous process, or, perhaps, of the transverse processes of the fourth cervical vertebra, the paralysis being due to pressure of the fragments on the cord. It was determined to operate, and an incision four inches in length was made over the vertebra, extending from the first to the sixth cervical, clearly exposing them. It was then discovered that the spinous process of the fourth cervical was considerably to the right of that of the fifth, and that the posterior common and the capsular ligaments connecting these two vertebra had been ruptured. No fracture could be detected. The patient's head was bent forcibly, and by manipulation the displaced vertebra was restored to its normal position. Antiseptic precautions were preserved throughout, and the dressings were removed on the eighth day. "From the day after the operation the patient's arm seemed to gain more mobility. Sensation also improved. This gain was constant, and increased steadily until three months after the operation, when there was scarcely any difference between the function of the left and that of the right or uninjured arm.'' Dr. Laplace adds that under antiseptic precautions a patient is exposed to a merely insignificant danger by an operation of this character.

Synthetic Somnambulism.

DR. B. W. RICHARDSON, in his *Asclepiad*, makes some most interesting observations upon what he terms ''Synthetic Somnambulism,'' induced by inhalation of the vapor of amylene. This agent is obtained by acting upon pure fusel oil, or amylic alcohol, with chloride of zinc. It is a liquid of an oily character, nearly colorless, and with an odor resembling raw whiskey. Its composition is $C_{10}H_{10}$. It acts feebly by the mouth or when given hypodermically. Its real properties are brought out by inhalation. ''There is some excitement and quick inebriation, followed by powerlessness of the limbs, and sudden collapse and coma, with insensibility to pain, but not always; and, indeed, rarely with an equivalent loss of consciousness.'' This consciousness is, however, a mere semblance, as the person on recovery does not remember the period when, to the bystander, he was apparently wide awake. Dr. Richardson tested this phenomenon on himself. Before inhaling the amylene, he determined that he would test for sensibility by pinching his hand. He says: Soon after inhaling I forgot myself altogether; but four minutes from the time I took up the jar I was quite conscious again, waking as if with a start, and thinking the experiment a failure, the amylene having acted so quickly that there was no interval during which to test the sensibility. But, turning now to my wrist, I found I was wrong in this suspicion, for there were deep marks of pinches in several places, and, further, the bottle containing the amylene vapor had been replaced on the table, with the stopper firmly adjusted, as I had intended.'' He then details several cases of unconscious action. In one observed by Snow, a child under the influence of amylene, during a severe surgical operation, was playing with a ball, talking and laughing, and on awaking knew nothing of what had occurred. Another subject went to a bookshelf, took down a book, walked about the library, and then returned to the chair, laying the book on the table, without the slightest recollection of performing these acts. A gentleman, ''while sleeping under the vapor, unlaced and took off his boots, and put them into an adjoining room, by the door, evidently under the impression that he was going to bed. He then lay down on a couch and composed himself to sleep,'' but woke almost instantly, having no conception of what had occurred. ''The most curious example was in a woman, who took amylene as an anesthetic for the extraction of a tooth.'' She went to sleep; but, as the dentist was about to operate, rose, observing that she was not ready, walk deliberately about the room, then seating herself again, said: ''Now, I am quite ready,'' at the same time opening her mouth widely. The extraction was a difficult one, but she showed no signs of pain, nor any recollection on awakening. Commenting upon this most interesting subject, Dr. Richardson says: ''It is thus clear that the human mind, through its manifestations, may be made to exhibit a mere objective consciousness, apart from the ordinary subjective consciousness of daily life * * *. The analogous phenomena; apart from experiment, and spontaneous or natural, are seen in perfect counterpart in somnambulism. The somnambulist is in precisely the same state * * *. He pursues acts of consciousness of which he is not self conscious; he presents a mere objective consciousness. I will not say it is certain, but the evidence is as clear as inferential evidence can ever be, that persons who are subjects of somnambulistic movements through some abnormal process of digestion or respiration, of the starchy elements of food, produce in their own organisms, by their own organic chemistry, an agent, which, like amylene, destroys remembrance, and, perhaps, judgment and reason, but which leaves the brain still able to act and to direct the limbs to do things which they could not do better in the most wakeful hour.''

The Apparently Spontaneous Origin of Zymotic Diseases.

Professional opinion is practically unanimous that zymotic diseases cannot originate *de nova*, but must depend upon infection by the specific germ of the particular type of disease developed. From time to time cases are reported in which no source of infection is apparent; yet here we should believe that it has not been discovered, rather than that it is non-existent. In connection with an inquiry concerning the spontaneous origin of typhoid fever, instituted by Dr. A. G. Young, the Secretary of the State Board of Health of Maine, and published in the annual report of that body, a very interesting case, reported by Dr. R. Bruce Low, an Inspector under the English Local Government Board, is cited, which bears directly upon this subject.

"In July last a typhoid case was reported in my district. Nearly four years had passed since the last case. The sufferer was the wife of a small shopkeeper. The house was superior to many of its class. It had no water-closet; there was a privy in the back yard, at a safe distance from the house, dry, clean, and well kept. There was a drain in the yard for slops, running into a stream close at hand. No dung-heap nor any filthy accumulation was near the house. The water supply was common to a number of houses, in none of which, before or since, was there any case of fever. The milk supply, too, was common to a number of other persons, none of whom suffered. None of the family had been out of the district for some months, and all persons who had visited at the house could be named and followed up without affording a clue. All the usual lines of investigation were carefully followed without result. It transpired, however, that the shopkeeper had rented another small house, nearly opposite his own, and had used it for storing goods. The back yard of this second house was wet, and the surface water did not get off freely, There was a gully at the back door, communicating with a drain, which was evidently blocked when he first took possession of the house three years ago. One hot day in June, assisted by a friend, he opened the surface of the yard, and found a square brick drain, about 12 inches by 8, choked for a distance of four yards with black, foul-smelling slime. The soil round this drain was saturated with this filthy mud. The men cleared the drain and carried off the contents to some cultivated land. While these operations were being carried on, and at the time when the stench was at its worst, the shopkeeper's wife came over to speak to her husband. The smell sickened her and she returned home. Fourteen days afterwards enteric fever was fully developed. She complained of being out of sorts from the time she was exposed to the smell. Here, then, is a foul accumulation discovered, but the specific poison has not yet been traced into the choked drain. There is a popular notion that a bad smell can cause fever; but this, of course, is erroneous. The smell itself cannot cause fever, unless it contain the specific poison. On referring to my journal, I found that ten years ago there had been a case of enteric fever in this house which had the blocked-up drain. This case was imported and was duly investigated at the time. This defective drain was then, as now, the only channel for the removal of slop-water, unless it was carried by hand a distance of thirty or forty yards and thrown into a running stream. This drain had always been a source of trouble to the tenants. It was made of brick, and had not a proper fall; it was easily silted up. As this drain was the only means for removing slops, it is certain that, at least in the earlier stages of the fever, the urine, and perhaps the water in which the soiled linen, etc., had been washed, would be poured down the drain. It is not difficult to believe, also, that, in spite of warnings to the contrary, some of the diarrheal discharges would be poured down the grate, to save the trouble of carrying them away into the garden. In this manner, then, the blocked-up drain received its specific contamination ten years ago. If this fact be true—and I have no doubt whatever that it is so—we have here evidence that the poison of enteric fever can retain its vitality under suitable conditions for ten years. And if for ten, why not for twenty or fifty years? The accidental liberation of the fever germs on a hot June day, by the opening up of the choked drain and the inhalation of this poison by the woman, was followed in due course by the development of the true typhoid fever. If the poison of typhoid fever has the power of lying dormant for years in a suitable soil, and leaping into life whenever an opportunity of escape offers, we have, I maintain, a probable explanation of the origin of many mysterious outbreaks, formerly referred to the *de novo* theory.

In the hands of a less careful observer, and in the absence of available data, this case would undoubtedly have been accepted as spontaneous, whilst its elucidation is a convincing argument against the *de novo* theory.

SOCIETY PROCEEDINGS.

SACRAMENTO SOCIETY FOR MEDICAL IMPROVEMENT.

Regular Meeting, October 13, 1889.

The President, A. E. BRUNE, M.D., in the Chair.

DR. A. E. BRUNE read a paper upon "The Use of Permanent Baths in Surgical Cases." (To be published.)

DR. F. B. SUTLIFF said that so much had been written about the bichloride and other antiseptic solutions that the subject of local baths in surgical cases had been rather lost sight of. The therapeutic advantages of this method in some cases were undoubted, but ordinarily in private practice, with the care and attention attainable, it could not be much used.

DR. W. F. WIARD had never used the bath, but he had employed continuous local irrigations with solutions of carbolic acid. The quantity of acid should be small, as, in his experience, poisonous symptoms might arise.

DR. J. R. LAINE had used local irrigations in cases similar to those mentioned by Dr. Brune. The application of water to an inflamed part was undoubtedly very soothing. He had found that in wounds of this nature, when freely cauterized with nitric acid or some such agent, the indications for local bathing would be greatly lessened.

DR. T. W. HUNTINGTON had seen one of the cases reported. He could remember when this method of treatment would have been beneficial, but since the use of antiseptics, there should be no need of it. In neglected cases, where sepsis had already begun, it would be expedient to employ it. In inflamed tissues he used a modification of this method in the application of the hot lead and opium lotion by compresses. He found that after 24 hours swelling and tension, as a rule, had been greatly relieved and that ordinary antiseptic measures would complete the cure. He thought that the chlorinated lime solution was far superior to carbolic acid, when used as a water bath.

DR. J. H. PARKINSON thought that the permanent bath in open wounds really acted as an antiseptic or disinfectant agent by promoting free drainage and providing an unsuitable soil for the multiplication of germs. Its application in inflamed tissues was undoubtedly valuable, but in wound treatment he believed that we had more reliable means for the prevention of sepsis.

DR. G. L. SIMMONS: In private practice it would be exceedingly difficult to pursue this treatment, owing to the impossibility of obtaining the necessary care and conveniences. I have seen some good results from baths in the Vienna clinics, especially in burns and in chronic skin affections.

THE PRESIDENT, in replying, said that he had not used the carbolic acid solution of a strength sufficient to produce poisoning, but merely as a slight disinfectant in the water. He would not attempt to use the bath at first, but only when other means had failed.

SAN FRANCISCO COUNTY MEDICAL SOCIETY.

Regular Meeting September 10, 1889.

D. W. MONTGOMERY, M. D., First Vice-President, in the Chair.

New Member.—ST. GEORGE GRAY, M. D., was duly elected a member of the Society.

Obstruction of the Blood Vessels.—DR. J. H. STALLARD exhibited some preparations and photographs, illustrating the obstruction of various blood vessels. He expressed his belief that when coagulation of blood takes place within the vessels, it commences as a deposit on the vessel wall and is added to by successive layers. A specimen exhibited showed the different gradations indicative of such a formation. Such a process was not uncommon during convalescence from acute diseases, when the patient was in an exhausted condition and sufficient attention was not paid to keeping the circulation in a state of activity. An example of this occurred in a patient convalescing from pneumonia, who, owing to the inattention of his nurses, went for eight or ten hours with insufficient food. At the end of this time a gradually increasing dyspnea appeared, followed by syncope, and within a few hours the patient died from thrombosis of the pulmonary artery. Reference was also made to another case of pulmonary thrombosis, already reported to the Society.

DR. J. ROSENSTIRN apologized that lateness in receiving the notice of the meeting had not permitted him to bring such specimens as desired. By some recent authors the various forms of changes in the blood vessels had been ascribed to a primary nerve lesion, producing vaso-motor changes, which resulted in alterations in blood supply, and, finally, disease of the vessel coats. It was interesting in this connection to note that the most frequent causes of disease in blood vessels, such as old age, syphilis, or alcoholism, were also among the most frequent causes of nervous disturbance.

DR. ARNOLD, SR., was not inclined to the belief that nervous disturbance was primarily due to endarteritis. He regarded the changes referred to as being of an inflammatory nature, set up under special conditions of the general system and favored by a low, sluggish circulation.

DR. STALLARD did not think that there was any primary disturbance of nerve function. He was more inclined to the idea that the vascular changes were due to high pressure from general plethora, the supply being greater than the demand.

Collodion in Local Inflammations.—DR. L. BAZET made a further report on the use of collodion in local inflammations. In one case, the pain in the hand, due to a septic wound, was speedily relieved after the application of collodion, and the treatment had yielded similar results in a case of thrombosis.

SPECIAL CORRESPONDENCE.

LONDON.

[FROM OUR OWN CORRESPONDENT.]

The Introductory Addresses.—The Sanitary Congress.—Overcrowding of the Medical Profession.—Suspension in Locomotor Ataxy.—Albumoses and Immunity.—The British Association.—Sir Joseph Lister. —Man-eaters.—Deaths of Eminent Medical Men.—The British Medical Association.—The London Medical Societies.

The Medical Session began last Tuesday, October 1st, in all the medical colleges and schools of London, and in most of the provincial schools. Gradually a dinner of past and present students has become a regular annual institution, and at many schools the formal meeting to hear an "Introductory Address" has been allowed to die out. The custom of giving such addresses has been much ridiculed, and it is considered "advanced" to think them useless, if not ridiculous. Something may, however, be said for them. Our profession is one that comparatively seldom has an opportunity of addressing the general public, and the opening of the Medical Session afforded a good opportunity to any man who had something to say. Unfortunately so few men have anything to say, and the general public found the abstracts, which the daily papers published, dull reading. This year, however, two veteran physicians have delivered discourses, which have deservedly attracted much attention. Professor W. T. Gairdner, of Glasgow, spoke at Leeds, and Dr. Clifford Allbutt, formerly of Leeds, but now a Commissioner of Lunacy, addressed the students at St. George's Hospital. The one address was a complement of the other, Dr. Allbutt pleading for a greater breadth of general culture in medical students and practitioners, Professor Gairdner for greater thoroughness in the study of medicine itself. A special piquancy was given to the latter by the fact that it was in some sort a reply by the ex-President of the British Medical Association, to the address given by his successor a few weeks earlier, at the annual meeting of the Association, in the same town—Leeds. Mr. Wheelhouse made himself the mouthpiece of an agitation which has arisen among general practitioners, who complain that the man fresh from the schools is shockingly ignorant of the way to treat common ailments, the method of compounding palatable mixtures, and the manner of soothing anxious mothers. Prof. Gairdner replied for the professors, and made out a very strong case for his own methods.

The Sanitary Institute has been holding its Annual Congress in Worcester this year, under the presidency of a well-known barrister, Mr. G. W. Hastings, M. P. A rather injudicious address, given by the President of the Section of Sanitary Science and Preventive Medicine, will tend, it is to be feared, to aggravate the feeling of soreness, which does exist to some extent, although it only finds expression in general conversation, or in opposition to the provisions of the new Act of Parliament, which compels the medical attendant to notify to the local health authorities all cases of infectious disease. A vast amount of sickness, he said, might be averted, and a number of lives prolonged to mature age if ordinary medical practice were based as much on preventive as on curative lines. Such a statement appears to contain an insinuation which had better not have been made, and its force was not diminished by the "plain-speaking" which followed. Preventive medicine was "detrimental to the pecuniary interests of the profession. To speak plainly, there was no disguising the fact that so long as the family medical attendant continued to be paid to attend only on people when they were ill, and not to conserve the health of the household, there would be a constant drag on public health progress." This is the exact contrary of the truth, for, in spite of the supposed pecuniary loss, indirectly involved, the medical profession has done, and is doing, infinitely more than any other class in the community to forward the progress of sanitary reforms.

That, owing partly to over-production by the medical schools; partly to other causes, not so easy to analyze, the position of the general practitioner in this country is yearly growing worse, can hardly be doubted. The evidence is too strong. At the meeting of the British Medical Association, in August last, resolutions were adopted directing the Council to make inquiries as to the alleged abuse of hospitals, and especially of their out-patient departments. The charity organizations are also moving in the matter, and the Government will probably appoint a Royal Commission of Inquiry. Dr. Rentoul, of Liverpool, who has taken a prominent part in the agitation, has elaborated a scheme for a Public Medical Service, with a sliding scale of fees, not, however, applicable to the well-to-do classes. Such a scheme is entirely visionary, but it is curious to note that the sanitary reformer, Dr. Wilson, has a very similar remedy for the defects he sees. He hopes to see an alteration in the present system, by which the medical attendant will be paid by an annual stipend, or retaining fee, which would be tantamount to creating an established and endowed medical service.

From what can be gathered in general conversation and from the medical journals, it would seem that we shall not hear much more about suspension in locomotor ataxy. The good results at first recorded have not been maintained; patients are found rapidly to deteriorate in many instances, and some physicians, who at first took it up with eagerness and high hopes, have already entirely abandoned it. The later French sensation, Brown-Séquard's hypodermic injections, has found no disciples at all, so far as can be ascertained, but it has raised a storm of indignation among a number of worthy people, who are shocked by the suggested "incomplete masturbation."

The stimulus given to the study of pathology at Cambridge by Professor Roy has been very great, and has entirely and happily falsified the forebodings with which his appointment was regarded by many who knew his abilities as a working physiologist. He has published some work remarkable for the exactitude with which the most complex problems connected with cardiac pathology were attacked. His influence is also to be seen in the increasing number of papers produced by students of the Cambridge school. The most recent of these is a preliminary note by Mr. E. H. Hankin, a foundation scholar of St. John's College, on an albumose isolated from anthrax cultures. It is prepared by precipitation with absolute alcohol, washed with alcohol to get rid of ptomaines, and then redissolved and filtered through a Chamberland's filter to free it from any organisms which may have survived the previous manipulations. A small dose of this albumose injected subcutaneously into a rabbit at the same time as the animal is inoculated with virulent anthrax, prevents the development of the disease. A larger dose appears to have the opposite effect, tending to hasten the development of the disease. Mr. Hankin advances the theory that the anthrax bacilli are enabled to grow and multiply in the animal body owing to their possessing the power of producing a special albumose, which has the property of lowering the cells the power of the spleen and other organs of the body to destroy bacilli. He supposes that a previous dose of this same albumose produces such an effect upon the cells that they acquire a tolerance of its poisonous qualities, and that thus the anthrax bacilli introduced simultaneously, or tending to multiply subsequently, are unable to multiply. The theory is weak, perhaps, but the fact that immunity against virulent anthrax has been produced in rabbits and mice by an albuminous body is very striking. The observations of Weir Mitchell, Wolfenden and others with regard to snake poison, and those of Wooldridge especially, with regard to other poisonous albumoses, have prepared us for some such result as Mr. Hankin has found. His observation makes it, therefore, increasingly probable that those who refused to accept the theory of ptomaines as a final answer to all the questions as to the mode of action of microörganisms will before long be fully justified by the results of chemical and pathological experiment.

The British Association met this year in Newcastle-on-Tyne, and had the same kind of social and popular success as generally falls to its lot. Professor Flower, who at one time practised surgery, subsequently held the post of Curator of the Museum of the Royal College of Surgeons, and is now the Director of the Biological Department of the British Museum, occupied the Presidential chair. His address "On Museums" was caviare to the multitude ; not so a paper, read by a lady, on women's dress, in which the ordinary style of dress was very cleverly defended. Coming on top of Professor Roy's defense of tight-lacing last year, this was too much for the dress reformers, who, in their protests published in the daily press, have adopted a tone of huffy indignation. Sir William Turner gave a most admirable semi-popular address on heredity, which was very keenly discussed. Professor Wissman's recent publication afforded many of the speakers a convenient vantage ground, and the opinion that the theory of the hereditary transmission of acquired peculiarities rested on a very slender basis of fact.

It is stated that Sir Joseph Lister has devised a new form of surgical dressing and new antiseptic fluids, which are to surpass all his former achievements in this direction. He had intended to communicate a paper on the subject to the Congress of German Surgeons, but was not ready in time. It is now expected that he will describe his new methods at a meeting of the Medical Society early in November.

The mortality due to wild beasts is, as is well known, very great in India. Poisonous snakes head the list, but man-eating tigers, owing to the panic which they cause, and the desolation thus spread far and near, are an even more serious nuisance. Sir William Hunter, the author of the "Gazetteer of India," records the case of a man-eating tiger which was known to have killed 108 people in three years, and another which killed an average of 80 persons a year for the same period. A third caused 13 villages to be abandoned, and 250 square miles of land to be thrown out of cultivation. A fourth killed 127 persons in a year, and stopped a public road for many weeks. According to Mr. Gilbert, a celebrated Indian sportsman, however, the generally accepted theory, which is also adopted by Hunter, is incorrect. The man-eater is not usually an old beast, which, disabled from overtaking its usual prey, lies in wait for villagers returning home, in the dusk, but a strong, handsome beast, in his or her prime, for the man-eater is sometimes a tigress.

Death has been busy in the ranks of the medical profession during the last few weeks. Dr. Habershon, well known for his writings on abdominal disease, and for many years physician to Guy's Hospital, died, after a long illness, due to some obscure abdominal malady. Mr. Walter Coulson, a surgeon in large practice in London in genito-urinary disease, succumbed to suppurative meningitis, which followed and was, perhaps, in some way connected with cauterization of the naso-pharynx for adenoid vegetations. Dr. Protheroe Smith, the founder of the Women's Hospital in Soho Square, said to have been the earliest in Europe, died ten days ago in a house in London. Saddest of all is the death by his own hands of Sir William Tindall Robertson, one of the few medical men who had a seat in the House of Commons. He had been blind for many years, and had done much useful work for his fellow-sufferers. He had recently suffered from a severe form of melancholia.

It is probable that the next meeting of the British Medical Association will be held in Birmingham, under the Presidency of Dr. Wade, of that city, who was at one time Treasurer of the Association.

The great strike of the dock laborers in London has had, as one of its more remote results, the effect of postponing the meetings of several of the Metropolitan Medical Societies. The Clinical and Pathological Societies meet in the rooms of the Royal Medical and Chirurgical Society. The last named has just bought a fine new house in Hanover Square, and the necessary alterations were to have been finished by the middle of last month. All the iron work, however, arrived in the docks the day before the strike commenced, and there remained for five weeks, during which the work in the Society's new house was at a standstill. The Librarian, who had all the forty thousand books in the library ready to pack in boxes, and men engaged and fully instructed, so that the whole library might have been transferred from the old to the new home in a single night, has had the disagreeable duty, instead, of consigning the precious boxes to a furniture repository, and the fellows of the Society are debarred from the use of this, the main medical lending library of London.

REVIEWS AND NOTICES.

THE URINE, THE COMMON POISONS, AND THE MILK. By J. W. Holland, M. D., Professor of Medical Chemistry and Toxicology, Jefferson Medical College of Philadelphia. Third edition; revised and much enlarged. Philadelphia: P. Blakiston, Son & Co.

This book consists of chemical and microscopical memoranda, to aid students engaged in the analysis of the above substances. The book is excellently arranged and well adapted to fill its purpose, as it presents the important points with sufficient conciseness and prominence to direct the work of the student without interrupting the course of the investigation. There are one or two typographical errors, which will doubtless be corrected in succeeding editions. On page 78 we read that cow's milk is sometimes "amphoteric; *i. e.*, *reddens blue* litmus paper, and turns *blue* litmus paper *red*."

ANNUAL OF THE UNIVERSAL MEDICAL SCIENCES. Vols. I to V. Issue for 1889. Philadelphia: F. A. Davis & Co.

The present issue of this important work is in several respects an improvement upon its predecessor. The difficult matter of references has been simplified by furnishing each publication with a number, and when referred to in the text this number, with month, or month and date, is given. A list of publications, with their numbers, is included in the last volume, and an idea of the scope of the *Annual* may be gleaned from the fact that 1234 publications have been referred to. In addition to the general triple index in the fifth volume, the first four volumes are each provided with an index. The general heads of subjects are indicated on the back of the volume by a letter, which is carried with the page number all through its particular section, and materially lessens the difficulty in finding an article. In fact, the matter of ready reference has been brought to the greatest perfection, and leaves little room for improvement. For the convenience of many practitioners the metric system and the equivalents in drachms, grains, etc., are given side by side. Two new departments, "Examination for Life Insurance" and "Railway Neuroses," have been added. The volumes, though containing more matter, are less bulky, owing to greater condensation in arrangement and finer paper. The illustrations, which are numerous, are executed in the best style. As compared with the previous issue, there is a decided improvement in the arrangement of material, and a greater smoothness and uniformity in the various articles. The highest credit is due to both editor and publisher in the production of the book, which more than sustains the promises of its first appearance.

THE PHYSIOLOGY OF THE DOMESTIC ANIMALS. A Text-book for Veterinary and Medical Students and Practitioners. By Robert Meade Smith, M. A., M. D., Professor of Comparative Physiology in the University of Pennsylvania, Fellow of the College of Physicians and Academy of the Natural Sciences, etc. With over 400 illustrations. Philadelphia: F. A. Davis. pp. xiii—938. Cloth, $6.00; sheep, $6.75.

As the only work in the English language treating of the physiology of the domestic animals, this volume is endued with peculiar interest and value. The cell is the real homunculus, the manikin, and is endowed with all the functions of being. With this the author begins, defining its general properties, tracing its origin, its modifications, its development into tissues and organs, and describing its physical and chemical processes. As the physical properties of that elementary organism, the cell are the basis of structure, so are its vital properties the basis of function—the knowledge of function is physiology. Cellular physiology, therefore, not only chronologically precedes organic physiology, but also furnishes its genetic foundation. This the author fully recognizes, and, in consequence, the first 150 pages, devoted to the functions of the animal cell, are as instructive as they certainly are interesting. Then the various nutritive functions, digestion, absorption, circulation, respiration, and secretion, and finally the strictly animal and the reproductive functions are taken up and thoroughly elucidated. The chapter on the physiology of movement is particularly interesting, and, based as it is, on instantaneous photography, is susceptible of little improvement. The different gaits of the horse are fully illustrated by cuts, some of which are startling in their contravention of the received, but erroneous ideas of the equine "poetry of motion." Altogether, the book is a valuable one, not only to the veterinarian, but also to the physician. Its typography is unexceptional, and its illustrations copious and clear.

THE PHYSICIAN HIMSELF, AND THINGS THAT CONCERN HIS REPUTATION AND SUCCESS. By D. W. Cathell, M. D. Ninth Edition. Revised and Enlarged. Philadelphia: F. A. Davis. Price, $2.00.

The fact that a ninth edition of this book has been demanded, is the best evidence that it has found professional favor, and it seems superfluous to say more than that much new material has been added and the whole carefully revised. Repeated perusals impress the reader that it has been written at the bed-side and in the sick-room, and the hand of the experienced practitioner and shrewd observer is everywhere visible. Every physician may read it with interest, and perhaps profit; but it is to the senior student, and he who is about to enter upon his professional career, that it particularly appeals. They will learn through it that there is much more in medical practice than medical science, and they will do well to avail themselves of its varied information. We cannot imagine a more profitable investment for the junior practitioner than the purchase and careful study of "The Physician Himself."

BOOKS AND PAMPHLETS RECEIVED.

The Climate of Southern California in its Relation to Renal Diseases. By P. C. Remondino, M. D. [Reprinted from the *Southern California Practitioner.*]

A Year's Experience with Apostoli's Method, with Reports of Cases. By A. Lapthorn Smith, M. D. [Reprinted from the *American Journal of Obstetrics.*]

Cow's Milk for Infant Food. By E. F. Brush, M. D.

Some Consideration of the Treatment of Gleet and its Relations to Stricture. By Wm. H. Dukeman, M. D. [Reprinted from the *Pacific Medical Journal.*]

Hypnotism: Its History and Present Development. by Fredrik Björström, M. D., Head Physician of the Stockholm Hospital, Professor of Psychiatry, etc. Translated by Baron Nils Posse, M. G. New York: The Humboldt Publishing Company.

The Value of Creasote in Fifty Cases of Diseases of the Air Passages. By Wm. Perry Watson, M. D. [Reprinted from the *Virginia Medical Monthly.*]

Atropine in Enuresis. By Wm. Perry Watson, M. D. [Reprinted from the *Archives of Pediatrics.*]

MEDICAL NEWS.

LICENTIATES OF THE BOARD OF EXAMINERS.

At the regular meeting of the Board of Examiners, held Oct. 2, 1889, the following physicians were granted certificates to practise medicine and surgery in this State:

Chas. Emmet Beebe, Woodland; Med. Dept. Univ. of Nashville, and Vanderbilt Univ., Tenn., March 1,'85.
Jos. H. Campbell, San Francisco; Cooper Med. Coll., Cal., Nov. 13,'88.
Samuel A. Hazen, Los Angeles; Med. Dept. Univ. City of New York, 1878.
Armenac J. Melchonian, Fresno; Jefferson Med. Coll., Penn., March 30,'82.
Lottie C. Park, San Diego; Woman's Hosp. Med. Coll., Ill., March 1,'81.
Jas. F. Rinehart, La Porte; Med. Dept. Univ. of Louisville, Ky., March 1,'89.
Geo. Owen Willis, Redwood City; Royal Coll. of Phys., Edinburgh; Faculty of Phys. and Surgs., Glasgow, Oct. 6,'76; Royal Coll. of Surgs., Edinburgh, Oct. 27,'76.
Albert P. Woodward, San Francisco; Bellevue Med. Coll. Hosp., N. Y., March 15,'86.

CHAS. E. BLAKE, Secretary.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the U. S. Army (Division of the Pacific), from September 17th, 1889, to October 17th, 1889.

The station of Major Y. Loring, surgeon, is changed from Fort Mojave, Arizona Territory, to Fort Wingate, New Mexico, and he will report for duty at the latter accordingly. Par. 7, S. O. 219, A. G. O., Sept. 20, 1889.

Leave of absence for one month is granted Assistant Surgeon C. A. Sewall, to take effect about October 1st, proximo. Par. 3, S. O. 98, Dept. of Arizona, Sept. 30, 1889.

Major Benjamin F. Pope, surgeon, relieved from duty at Fort Clark, Texas, and will report for duty to commanding officer Whipple Barracks, Arizona Territory. Par. 11, S. O. 230, A. G. O., Oct. 3, 1889.

Lieutenant-Colonel J. R. Smith, surgeon, Medical Director of the Department, will proceed on public business to Fort Mojave, Whipple Barracks and Fort Verde, Arizona, Forts Wingate, Marcy, Union and Selden, New Mexico, and upon completion return to his proper station. Par. 6, S. O. 101, Dept. of Arizona, Oct. 7, 1889.

Upon return of Major A. C. Girard, surgeon, to Boise Barracks, Captain H. P. Birmingham, assistant surgeon, will repair to Vancouver Barracks and report to the commanding officer for temporary duty at that post. Par. 1, S. O. 123, Dept. of the Columbia, Oct. 8, 1889.

Assistant Surgeon, C. A. Sewall is relieved from temporary duty at Fort Verde, and will return to his proper station, Whipple Barracks, Arizona. Par. 1, S. O. 203, Dept. of Arizona, Oct. 11, 1889.

Assistant Surgeon H. P. Birmingham will accompany Troop F, 2d Cavalry, as medical officer, to Fort Leavenworth, Kansas, and, on the completion of this duty, will return to his proper station. Par. 1, S. O. 125, Dept. of the Columbia, Oct. 14, 1889.

Colonel Basil Norris, surgeon, Medical Director of the Department, will proceed on public business to Benicia Barracks, Cal., and on completion thereof will return to his station in this city. Par. 4, S. O. 91, Dept. of California, Oct. 17, 1889.

ITEMS.

Doubtful Homeopathy.—Recently, a writer in a homeopathic journal mentions administering sulphonal in 15 grain doses. This is very good medical practice, but the homeopathic element in it is not so apparent.